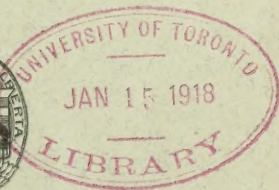


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ANNUAL REPORT  
OF THE  
DEPARTMENT OF AGRICULTURE  
OF THE  
PROVINCE of ALBERTA  
1917

PRINTED BY ORDER OF THE LEGISLATIVE ASSEMBLY



EDMONTON:  
PRINTED BY J. W. JEFFERY, KING'S PRINTER  
1918

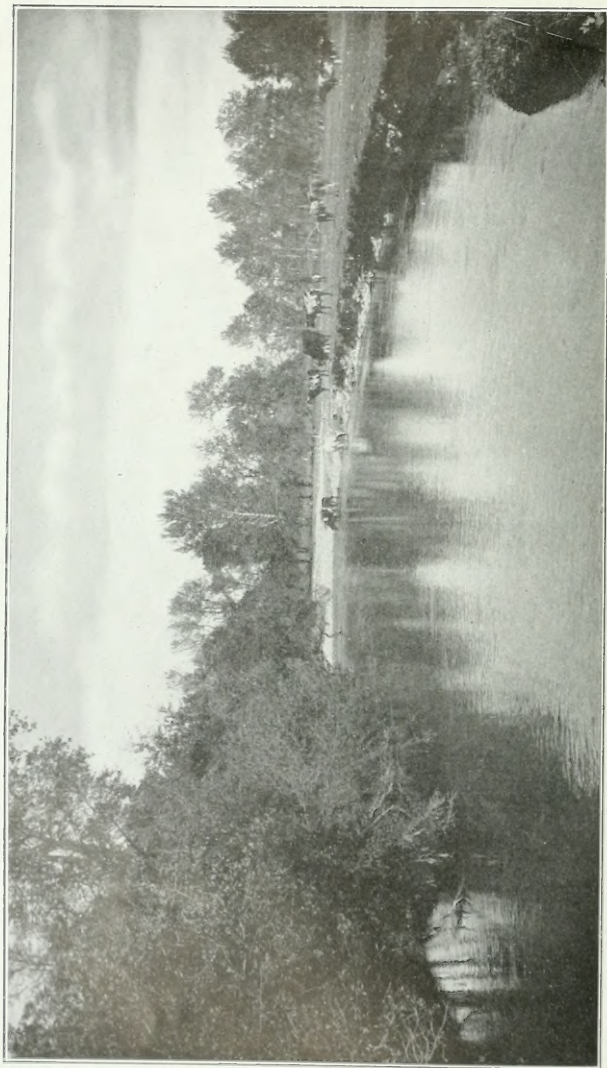












PASTORAL SCENE NEAR HIGH RIVER

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1918



DEPARTMENT OF AGRICULTURE,

EDMONTON, DECEMBER 31, 1917.

To His Honour

ROBERT GEORGE BRETT,

*Lieutenant Governor of the Province of Alberta.*

SIR,—

I have the honor to submit herewith the Report of the Department of Agriculture for the year 1917.

I have the honor to be, Sir,

Your obedient servant,

DUNCAN MARSHALL,

*Minister of Agriculture.*



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- Report of the Deputy Minister.
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- Report of the Dairy Commissioner.
- Report of the Superintendent of Fairs and Institutes.
- Report of the Superintendent of Women's Institutes.
- Report of the Superintendent of the Seed and Weed Branch.
- Report of the Poultry Superintendent.
- Report of the Poultry Marketing Commissioner.
- Report of the Recorder of Brands.
- Report of the Chief Game and Fire Guardian.
- Report of the Crop Statistician.
- Report of the Publicity Commissioner.
- Report of the Sanitary Engineer.
- Report of the Director of the Provincial Laboratory.
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## DEPARTMENT OF AGRICULTURE

### *Heads of Branches.*

S. G. Carlyle, Superintendent Demonstration Farms.

P. R. Talbot, Provincial Veterinarian.

W. F. Stevens, Live Stock Commissioner.

C. P. Marker, Dairy Commissioner.

A. Galbraith, Superintendent of Fairs and Institutes.

Miss M. MacIsaac, Superintendent of Women's Institutes.

J. D. Smith, Superintendent of Seed and Weed Branch.

A. W. Foley, Poultry Superintendent.

J. H. Hare, Poultry Marketing Commissioner.

J. Wilson, Brand Recorder.

B. Lawton, Chief Game and Fire Guardian.

C. S. Hotchkiss, Chief Publicity Commissioner.

R. B. Owens, Sanitary Engineer.

A. C. Rankin, M.D., Director of Provincial Laboratory.

Dr. T. J. Norman, Provincial Health Officer and Deputy Registrar-General.

J. McCaig, Editor of Publications.

WORKING FOR THE APPLES



## REPORT OF THE DEPUTY MINISTER

HON. DUNCAN MARSHALL,

*Minister of Agriculture,*

*Edmonton.*

SIR,—I have the honour to submit herewith the eleventh annual report of the Department of Agriculture. It includes a summary of agricultural conditions in the Province as well as reports from the heads of the various administrative branches outlining their work for the year.

### *Activities of the Department.*

The general work of the Department of Agriculture has been increased to a considerable extent on account of the campaign for increased production and the assistance given in various ways to the Food Control office. Officials of the Department have addressed a large number of meetings throughout the Province in the interests of greater production. In fact the efforts of almost every branch of the Department have been directed toward this end. In the early part of the season a number of short courses were held which included the fundamental interests of live stock, agronomy and household economy. These courses were of three days' duration and were held at ten places. During the early summer the Women's Institute Branch held thirty-five short courses for women. All of these courses were highly successful in point of benefit and interest. Particular attention was paid to food values, food conservation and the proper cooking of food. During the spring, the Department issued advertising and press notices to all the papers in the province, encouraging activity among women and children especially in gardening and poultry raising. There can be no doubt that the efforts of the Department along these various lines resulted in greatly stimulating production.

During the summer a Mixed Farming Special was operated, as has been the custom for several years. The different branches of the Department placed exhibits of an educational nature in railway cars and the heads of the branches or others representing them, travelled with the cars giving demonstrations and explaining the different exhibits. Stops of half a day were made at forty-eight places, the itinerary taking thirty days to complete. The thanks of the Department are due the Canadian Pacific and Edmonton and Dunvegan Railways for their co-operation in the supplying rolling stock, equipment and crew and hauling train free of all charge.

Excursions were run in August to the three Schools of Agriculture and Demonstration Farms. Special trains were arranged from several points and a large number of people attended each excursion.

### *Crops and Crop Conditions.*

The spring over the greater portion of the Province was late and cold, but fortunately as the season advanced the weather was very favorable, resulting in a large acreage being put into crop. The growing

season was warm, with a reasonable amount of moisture. The first killing frost came much later than usual this year, with the result that heavy crops were general. In the south-eastern portion of the Province the season was very dry and as a consequence rather light crops were harvested. The damage from hail in several parts was quite heavy, particularly in the High River district, where a very severe storm covered a large stretch of country.

Some trouble was reported to the Department from various sections of the Province where a fly was working in the wheat. Experts were sent out and determined the cause of the trouble. A meeting was held in the district and the farmers were advised of the nature of the pest; it was found to be Thrips, not a dangerous insect as compared with the Hessian Fly.

Throughout the winter, information began to reach the Department that certain sections of Alberta would be short of seed grain. A delegation of citizens from the Peace River country and other districts north of Edmonton visited the Department and arranged to have seed grain distributed throughout the northern portion of the Province. Arrangements were made with the Merchants' Bank of Canada to guarantee the credit of all farmers in need of seed grain, whose lands were patented, and as security took a seed grain lien on the property. Under this system about \$35,000 worth of grain was distributed.

#### *The Production and Distribution of Better Seed.*

A system of distribution of seed grain has been worked out. Up to the present, our Department has not had any policy for the distribution of pure varieties of seed grain, as is common practice in several other provinces and in most States of the Union. It has been felt by several members of the staff that our Province possesses natural advantages for the production of pure seed: chief among them may be mentioned the resources and adaptability of our soil and climate to the production of large, bold, plump, vital seed. It must be admitted that many districts throughout the Province are badly infested with certain kinds of weeds. Taking the Province as a whole, however, and considering the areas of uncultivated land, it is comparatively free from weed pests and this is undoubtedly a great advantage in the production of seed grain of high quality. In evolving a plan for seed distribution, a careful survey was made of the work carried on by different provinces in Canada and several of the States across the line with a view to profiting by the experience of these older countries. In most places, small samples of seed containing three or five pounds each are used for distribution and it cannot be questioned that such a system has many advantages, particularly in that it gives a large number of people an opportunity to secure pure varieties by multiplying from this small sample. However, it has been deemed wise in this Province to distribute a larger amount sufficient to make it worth while for a farmer to prepare ground specially with ordinary machinery, to cut, thresh and bin separately. Furthermore, it was decided that it would not be wise to give away such a large amount as would be necessary to distribute under such a system, consequently this seed will be sold at commercial rates to farmers, the Department absorbing the difference between the commercial rate and the rate actually paid for the seed.



*Labor and Statistics.*

The Department has given a good deal of attention to the question of supplying farm labor. Meetings were attended by officials of the Department where the railway companies and Dominion Government were represented. Arrangements were completed whereby reduced rates throughout the Province went into effect for all *bona fide* farm laborers. Five agents of the Provincial Department were sent to the United States to work through the Central and Western States with a view to securing farm labor. Labor bureaus were established by the Department at Edmonton, Calgary and Lethbridge. These offices were open for a month in the spring and for six weeks during harvest. The system resulted in a reasonable supply of farm labor being secured, though the wages paid in many cases were exceedingly high.

*The Securing of Reliable Statistics.*

During the year the Department has been in communication with the Census and Statistics office of the Dominion Government with a view to arranging for a uniform system of securing agricultural statistics. Heretofore, the statistics gathered by the Province have been entirely independent of those gathered by the Dominion Branch. It has been recognized that the system employed by both Governments was open to criticism. Early in the season the Dominion Census Commissioner visited the Province and an arrangement was made whereby the two Governments would work together in the matter of securing agricultural statistics, each doing a share of the work. It was decided to secure the assistance of the public school children in this connection and as a consequence each school teacher was communicated with by the Provincial Department and requested to explain to the children the necessity for supplying accurate information with respect to farm crops and farm animals. Each child from a country school was given a blank card to be taken home and filled in by which it is possible to secure first hand information from a large number of farmers. In addition to this, both Governments retain the old system of voluntary crop correspondents. The figures are tabulated at Ottawa and the final results submitted to this Province for approval. As a result, the figures given out by the Province in the future will be identical with those given out by the Dominion Department with respect to the same matters. In the matter of actual grain yields, the Provincial Department still operates the system of threshers' returns. These returns are also submitted to Ottawa as the Dominion returns are submitted to the Province and an agreement arrived at as to the final figures before the information is published. It is felt that the statistics supplied in the future will be much more reliable than has previously been the case.

*Sales Service for Eggs and Poultry.*

A new departure has been made with respect to poultry and egg marketing. The Dominion Live Stock Branch has for some time been developing an egg marketing service throughout Canada. About three years ago a start was made in this Province and a representative, Mr. T. A. Benson, was permanently located here. During the first two years of the work the Province gave whatever support was possible but it was found that as the work advanced, the Province would have to become more intimately associated with the actual carrying on of the work if any substan-



HAMPSHIRE IN CENTRAL ALBERTA

tial assistance were to be rendered. Negotiations were commenced with the Dominion Live Stock Branch and after correspondence between the two offices and after several meetings had been held between these officials, a plan was worked out and submitted which was approved by the heads of both Departments. The new policy provides for each Government being represented equally on the staff employed to carry on this work and for each Department to share equally in financing the sales made by the marketing service and in the administration.

Mr. J. H. Hare, who was formerly in the service of the Dominion Department in similar work in Eastern Canada and more recently in Manitoba, has been employed as this Department's representative. Very substantial progress was made last season, particularly in the southern part of the Province. Cold storage space has been secured in Calgary and in the meantime, Mr. Hare is temporarily located there. Local shipping associations have been formed at a number of points. Visits have been made by members of the staff to the different points where organizations have been effected, and explanations given regarding the work in general. In most cases, arrangements have been made with the local store-keeper for handling the local consignment. As soon as the shipment reaches cold storage in Calgary, the eggs are candled and graded and an advance payment is made to consignors. If market conditions warrant, the eggs are sold, and if not, they are stored until conditions are more favorable. At the end of the season, the balance of the return is made to each shipper. Reports from shippers have been most satisfactory and there is no doubt that the work will very largely increase during the coming season. When it is possible to cover the Province with this service, the quality of the eggs shipped from Alberta will be very greatly improved. It is particularly opportune that this work should be commenced now as our Province has recently become an exporter of eggs. By such a system as the above, the quality of our eggs will not only be higher, but a reputation will be established in outside markets which will result in a steady sale for all the eggs that can be produced.

#### *District Agents' Work in Alberta.*

The work of the District Agents in Alberta is making satisfactory progress. It is the policy of the Department to use trained men of the Agricultural Schools for this work. This year five instructors were in the field and had charge of a considerably increased area over that of last year. H. W. Scott, of Claresholm, had charge of two districts, Sedgewick and Alliance. J. C. Hooper, of Claresholm, had charge of the Claresholm district. W. J. Elliott, of Olds, carried on the work in four centres, Olds, Trochu, Bowden and Derbytown. W. G. Payne directed the work at Vermilion and H. H. McIntyre at Stony Plain.

Except in the case of one District Agent, the work of these officers is limited to the spring and summer seasons between the sessions of the Schools. The School Fair work is so far the important part of District Agents' work and this year the number of schools reported is 40 per cent. more than last year, the total number being 137 as against 95 in 1916. All the School Fairs with the exception of Vermilion were held separate from the District Fairs and all were liberally patronized by the public, the attendance in most cases being between 600 and 1,200 people.

The competitions were divided into three sections. Section A included groups in which pupils competed with each other in the same schools. The exhibits were potatoes, carrots, beets, turnips, mangels and cut flowers. Section B consisted of competitions open to the pupils of all the schools and included prizes for the following live stock, pail-fed dairy heifer, pail-fed steer, halter broken and groomed. Grain prizes included sheaves of wheat, oats and barley and two quarts of hand-picked grain of the same kinds. The domestic science prizes were given for sewing, darning, baking and canning, and the preparation of school lunches. The miscellaneous groups were generally interesting and varied in the different districts. They included such items as whole exhibits from schools, best collection of weeds, insects, sewing and baking, best pail-fed calf, best kept plot, best poultry, etc.

With respect to the exhibits of vegetables and grain, the impression of visitors was that the exhibits of the school fairs were superior to the exhibits in general district fairs. Potatoes were better graded and were free from disease. The vegetables generally were smooth, good in quality and were nicely set out, the whole showing an average high standing of work.

### *Pig Clubs.*

At the Olds centre this year the work was expanded by the organization of a Pig Club, the Bank of Commerce and the District Agents co-operating in the work. Pigs were purchased by the District Agents and were allotted to the boys. The purchase money was advanced to the boys at 6 per cent. These pigs, two in each case, were fed and cared for by the boys and one of them was sold in the fall to redeem the note at the Bank, the other to be kept for a brood sow and the fattened litters to be sold next year. It is probable that the number of clubs of this sort will be increased next year and there will probably be one in each District Centre. Calf Clubs may also be added.

Mr. H. H. McIntyre, who is situated at Stony Plain, is carrying on the work throughout the year for the sake of widening the usefulness of the District Agents. He distributes bulletins, gives advice, holds meetings, inquires into animal and crop diseases, and this fall is doing good work in marketing crops for the farmers. The Stony Plain district is famous for its potato production. The soil is rich and easily worked and the farmers are industrious and successful truck growers. Already he has brought buyer and seller together to the advantage of both, and has cleared an appreciable proportion of the potato crop with the effect of steadying the market. He will act whenever he can to promote satisfactory business for the farmer.

While the ground covered by the District Agents this year is considerably larger than it was last year, it is still small in relation to the possibilities of this kind of work. The work is carried on by the trained teachers of the Agricultural Schools, which is a guarantee that the services to the children as well as to the farmers themselves will be reliable, and based on the intelligence and training of the District Agents. While the demand for the work has increased very largely, the Department will probably not go faster than satisfactory work becomes possible from a sufficient supply of good men to do the work. It will probably be increased considerably next year and there will also be a widening of the District Agents' work itself to embrace new activities.

*The Dairy Industry.*

Notwithstanding the fact that grain prices have been very high, a large number of farmers have continued in the business of dairying. It is a fact also that the price of dairy products has not advanced in keeping with most other farm commodities.

On account of the comparative steadiness and certainty of revenue, the dairy business will doubtless continue to be one of the chief industries of the Province in spite of the attractiveness and the possibilities of greater returns from less secure ventures.

The marketing service of the Department has been made use of to a greater extent than heretofore. Early in the season, the Department decided that the service would be extended only to those who practised pasteurization of cream. In the past it has been found by the Dairy Branch that butter might grade well when fresh, but in some cases unless pasteurized it would deteriorate rather quickly when held in storage. In order to build up the reputation for Alberta butter which is now in competition with butter in outside markets, it was decided wise to encourage pasteurization as far as possible. The result has been very satisfactory, modern and efficient pasteurization machinery having been placed in the creamery plants in the Province during the year. This will doubtless result in greatly improved quality of the butter output of the Province and will enable our product to compete successfully with that from other places, when held in storage for some time before marketing.

There has been a demand for a similar service to be extended to cheese manufacturers. If this can be arranged, there is no doubt but that it would mean much to the young but growing cheese industry. The cheese output is increasing in volume to the point of becoming an important addition to the economical food resources of the Province.

*Marketing of Products.*

During the year the considerable marketing of farm products in car lots was carried through by the Department. Seed grain of oats, wheat and barley was shipped as far east as the Province of Quebec. Buyers and sellers of timothy seed were brought together and the business in timothy seed was greatly expanded over that of last year, the total being 100,000 bushels. This likewise went to Ontario and Quebec at the time of the harvesting and potato crop. A large number of cars of potatoes were placed for producers in the Stony Plain district. Most of these went to Ontario. The total shipped was over forty cars.

Respectfully submitted,

H. A. CRAIG,

*Deputy Minister.*





FARM-STEADING ON PROVINCIAL DEMONSTRATION FARM, ATHABASCA

# FINANCIAL REPORT OF DEMONSTRATION FARMS.

BALANCE SHEET AT DECEMBER 31, 1917.

ASSETS		LIABILITIES	
Live Stock	\$84,587.19	May, 1915-December, 1917—Operation Vote . . . . .	\$115,750.50
Less Depreciation	5,923.34	May, 1915-December, 1917—Less Payments to Treas- ury	92,934.43
Crops and Provisions on Hand		Accounts Payable	21,816.07
Accounts Receivable	406.70	Capital	1,402.50
Educational Work . .	503.91	Add Profit for Year 1917 . . . . .	\$310,111.65 1,993.50
Schools of Agriculture	3,828.65		312,105.15
Milk on Hand			
Sacks on Hand	1,738.36		
Fall Plowing, Manuring, Wool, Growing	24.70		
Crops Hay, Rye, Alfalfa	59.72		
Land	12,756.97		
Improvements to Land 1915-1917	101,059.74		
Permanent	2,186.70		
Fencing	9,040.77		
Less Depreciation	2,296.26		
Buildings	6,744.51		
Less Depreciation	104,922.24 12,591.33		
Equipment	92,330.91		
Less Depreciation	21,950.58 8,803.88		
Temporary:	13,146.70		
Sinking, etc., Accounts	316.88		
Annual Suspense Accounts	1,832.30		
Insurance Unexpired	1,198.65		
	\$335,323.72		\$335,323.72

## DEMONSTRATION FARMS

PROFIT AND LOSS ACCOUNT FOR PERIOD JANUARY 1 TO DECEMBER 31,  
1917.

	Dr.	Cr.
Loss on Sale of Cattle .....	\$4,332.92	
Loss on Dairies .....	5,350.39	
Profit on Potatoes (Sale of) .....		\$ 62.71
Profit on Sundries .....		85.19
Profit on Sales of Hogs .....		996.02
Loss on Hens and Eggs .....	320.95	
Profit on Sale of Wool and Sheep .....		1,174.61
Loss on Sale of Horses .....	140.57	
Revenue from Schools for Rent of Land .....		600.00
Revenue from Schools for Hire of Horses .....		1,620.00
Revenue from Schools for Feeding Cattle .....		230.65
Profit on Out Sales .....		2,384.72
Profit on Sales of Barley .....		359.27
Profit on Sales of Wheat .....		3,774.11
Profit on Sales of Rye .....		243.26
Profit on Steer Feeding .....		554.33
Profit on Sales of Peas .....		53.46
Balance—Profit .....	1,993.50	
	<u>\$12,138.33</u>	<u>\$12,138.33</u>

## REPORT OF DEMONSTRATION FARMS

SIR.—I beg to submit herewith a report of the Demonstration Farms for the year 1917.

The work of the Demonstration Farms is subject to the same limitations as is the work of the settler due to rather sharply varying climatic and soil conditions in different parts of the Province and likewise to the difficulty of establishing safe conclusions as to cultivation and cropping practices where the opportunities for trial and observation are limited to a very few years. The success of all farm enterprises depends directly on the observance of right fundamental general principles that stand for a combination of immediate success and conservation, and on the fitting of these in application to special and local conditions.

### *A Conserving Policy in Agriculture.*

It is becoming more evident every year that a system of mixed farming, as constantly emphasized by the Department of Agriculture, is the only safe type of work for the farmers of Alberta to follow. The season just closed has furnished numerous instances, where, in addition to grain being grown as the principal crop, some live stock has been kept to eat the roughage and incidentally to help swell the revenue. This combination of interests has in a great many instances saved the farmer. In a country that is subject even occasionally to frost, hail and drought, no man, unless he has sufficient credit or capital to carry him over, should rely on a straight grain-growing type of farming as his only source of income. We have had proof of this on the Provincial Demonstration Farms this year. Had it not been for the amount of stock kept and the fodder crops grown for feed the result would have been a total failure on at least two of our farms which were in the open prairie districts. In addition to this the keeping of some live stock and the growing of the cheapest feeds to mature them necessitate a certain rotation of crops on the farm which is beneficial and conserving to the land itself. By the continued growing of grain the land must decrease in fertility, and, though our land is rich in all the elements necessary for the production of big crops, the time will surely come when this fertility will be so depleted that the yield will be seriously reduced.

### *Fertility and Fibre.*

The growing of grass crops to supply pasture for stock in the summer and hay for winter fodder, is not only the means of returning fertility to the soil in the form of manure from the stock. By plowing down the sod directly, not only is organic matter added to the soil in the form of decaying stubble and roots, but fibre is also added, which is necessary in the lighter soils, at least, to keep the soil from blowing. The past six years' experience has shown that on light soils it will pay to seed to grass even though the crop of hay harvested does not pay for the labor expended. The value of the sod turned under will more than offset any loss in hay by the increase in subsequent crops. This is especially true of farms like those at Athabasca, Vermilion and Sedgewick.

On the Athabasca farm, where there are about one hundred acres under cultivation, it is the practice at present to keep thirty acres under

grass, leaving it two years. Fifteen acres are seeded down and fifteen acres are plowed up each year. On the Vermilion farm, which comprises a half section, thirty-five acres are seeded to grass each year and thirty-five plowed up, where seventy acres are under grass. The first year's seeding is used for hay and the second year's crop for pasture until the end of July when the grass is short and dry. It is then plowed and worked as a summer fallow until the end of the season.

In addition to this a field of fall rye is sown in July for pasture in the fall and early spring. This is plowed up at the end of June and worked as a straight summerfallow the remainder of the summer. The whole farm is gone over in this way and by this method the straight summerfallow is eliminated, fertility and fibre are added to the soil and the weeds are kept in check. On some farms it might pay better to sow a large acreage to rye with a smaller acreage seeded to grass, especially if the soil is fairly heavy and not subject to blowing. If there should be more pasture than the stock will eat it can be left to mature and to be threshed. On the Medicine Hat farm, where it is too dry for tame grasses to establish themselves, quite a large acreage is sown to rye. Last year a twenty-eight acre field, which had been sown to rye the fall previously, pastured twenty-four head of Jerseys until the middle of June, when they were turned out, as the rye was getting too hard to be palatable. The remainder of the rye which was not eaten was left to mature, was cut and threshed, yielding 361 bushels. The stubble was immediately plowed and cultivated the rest of the summer.

#### *Crop Results.*

The crops on the Demonstration Farms, where there was a sufficient supply of moisture, were good.

*Athabasca.*—On the Athabasca farm heavier yields of grain are produced each year, due to favorable seasons, improved methods of cultivation, selected seed grain, and a definite system of rotation. On one fifteen acre field there were threshed 1,500 bushels of banner oats. This crop is mostly held for seed and sold to the farmers in the immediate vicinity. An acre of corn is planted every year for experimental purposes. It was badly frozen this year, so amounted to very little. A plot of a couple of acres is sown to rape in drills 28 inches apart every year for the pigs. It has proven a profitable crop. Turnips yielded only a medium crop and the quality was poor owing to worm-eaten parts. Timothy yielded one ton per acre of good quality.

*Stony Plain.*—On the Stony Plain farm the crops were satisfactory this year. A small field of alfalfa was sown in the spring of 1916. This came through the winter in good condition and yielded three tons per acre. An area of about sixty acres of this farm is kept under tame grass. The yield of hay this year was good and the quality excellent. Timothy, rye grass and alsike clover are sown, but the clover so far is not a success. Turnips yielded a very heavy crop, but the quality was not as good as usual.

*Olds.*—The season at Olds was very backward in the spring, very little grain being sown before the latter part of May. The weather was very favorable in June and there was a rapid growth, with the result that a very heavy crop of green feed and straw was harvested, but the threshed grain was light.



*Claresholm.*—On the Claresholm farm the crops were excellent. Wheat yielded 49½ bushels per acre but was considerably damaged by an early frost; oats averaged 70 bushels per acre, over the whole farm, and barley made the remarkable average of 76 bushels per acre. Corn and roots also yielded a very heavy crop.

*Medicine Hat.*—This was one of the driest seasons in the history of the district and all the crops suffered for the want of moisture. Notwithstanding this, enough feed was grown for the stock. Corn was almost a complete failure, but a fair crop of roots was harvested which assisted greatly in supplying succulent feed for our dairy herd.

*Sedgewick.*—Though the season was somewhat dry the crops on this farm were up to the average. Oats yielded 58 bushels per acre, wheat 24½, barley was a light crop, yielding 24 bushels, but only a small acreage was sown.

*Vermilion.*—The season in the Vermilion district was the most unfavorable on record, the seed was sown fairly early with the soil in good condition. When the crops were nicely up they were frozen to the ground. This was followed by cool dry weather which gave the crops no chance to recuperate. The whole season was very dry, only one and one-quarter inches of rain falling during the growing season. This resulted in poorer crops being grown than in any previous year.

#### *War Cropping.*

In the present world crisis when the call is for greater production of food stuffs, and for the conservation of certain foods which are necessary for the armies in the field and also for the civilian population in those countries in the war zone, we are constrained to change our methods to meet those conditions and requirements. The greater call is for bread, and it is our duty to respond to this call with all the energy we possess. The next important appeal is for bacon, and the third is for beef. In order to respond to these calls it is our duty to put in every available acre suitable for the growing of wheat. Land not suited for growing wheat can be sown to oats and barley and late sowings can be used as fodder for live stock.

#### *Economy in Large Forage Production.*

On improved farms where there is no cheap natural pasture available it will be to the interest of the farmer to cull his stock closely, at present high prices of grain and labor it will pay to keep nothing but first-class stock and besides grain can be made better use of being shipped direct than by being fed to inferior animals. Fodder crops can also be used to cut down the grain ration. These may be alfalfa for pasturing hogs, rape for pasturing hogs, sheep and cattle, and corn for soiling and ensilage in the southern part of the Province. Rape is one of the best pastures for the summer and fall months. It reaches its best condition when cool weather comes. It grows luxuriantly in every part of the Province, and is relished by pigs, sheep and cattle. By having a good sized field of rape the grain ration can be almost cut in two. It may be sown any time from early spring up to first of July, and to do well should be sown on well prepared soil. It can be sown either broadcast or in drills, but preferably in drills 28 or 30 inches apart. In this way it can be run

through once or twice with the horse cultivator and a more rapid growth will be ensured, and where the stock is turned on no damage will be done to the crop by tramping, as the animals will walk between the rows. It is better not to turn the stock on too early as more feed will be secured if the plants are allowed to reach a height of about eighteen inches, and there will also be less danger of bloat. Precaution should be taken not to turn the sheep or cattle in when they are hungry or when the leaves are wet with rain or dew, as the wet leaves in the paunch of the animals ferment rapidly, causing bloat. This also happens when the animals take an overfeed by being hungry. It can be grazed quite late in the year, however. Cattle and sheep secure considerable stored nutriment from the stems often up till Christmas.

#### *Silos.*

Silos are now past the experimental stage in this Province and are a success. In the southern part of the Province where corn will reach the dough stage good ensilage can be made from this plant. In the centre or northern parts of the Province where corn will not mature, green oats and peas or green oats alone make first-class ensilage. This crop can be cheaply grown and handled with a minimum of labor. When fed to farm animals during the winter it tends to keep them in good health and condition and the additional small grain ration will keep them growing steadily.

#### *Stock.*

The different classes of live stock on all the farms this year have done well. The herds of cattle have been culled closely, especially in the dairy breeds. We have now representatives of five different breeds, Holsteins, Ayrshires, Jerseys, Shorthorns and Herefords. We have also a herd of dairy Shorthorns. The best animals are used in the winter months for class-room work in the Schools of Agriculture and are moved from point to point each winter for this purpose. A few colts have been raised on the farms each year and the older ones are now taking the place of the farm teams that are getting up in years and which are being sold. In answer to the call of greater pork production, the number of brood sows has been more than doubled on all the farms and a much larger number of pigs will be raised next year.

The sheep on all the farms have done exceptionally well. The lamb crop was satisfactory and the prices for both wool and mutton exceptionally high. The market for surplus breeding stock, both pure-breds and grades is good and the supply much below the demand. Results in the running of both registered and commercial flocks go to demonstrate the wisdom of the general establishment of moderately-sized flocks on all the farms in the Province. The cost of close fencing for the beginning farmer is no doubt a drawback, but the need of the close fencing as a feature of general surface equipment is quite evident on all farms where financial conditions permit it.

Respectfully submitted,

S. G. CARLYLE,

*Superintendent.*

## REPORT OF THE PROVINCIAL SCHOOLS OF AGRICULTURE

SIR,—The Report for the Schools of Agriculture for the year 1917 indicates a steady growth of interest in the systematic education of farm boys and girls among parents in Alberta. There is no doubt but that the war has seriously affected the attendance at the schools both by reason of the boys themselves enlisting and by the scarcity of help at home from general enlistment. This was felt to some extent in the 1916 term when the number was smaller than in the previous year, but this term the attendance is again considerably increased. The quality of growth may be more clearly seen in the steady increase in the number of girl students who have not been affected to the same extent as the boys by the war.

The attendance for the five years during which the schools have been in operation is as follows:

<i>Term</i>	<i>Boys</i>	<i>Girls</i>	<i>Total</i>
1913-14 .....	172	62	234
1914-15 .....	216	70	286
1915-16 .....	228	109	337
1916-17 .....	186	119	305
1917-18 .....	239	89	328

Independent of the matter of attendance substantial progress is being made with respect to a number of important particulars. These include: the better co-ordination of the work of the schools and the Demonstration Farms; an increase in neighborhood improvement in the area adjacent to the farms; larger usefulness in the District Agents' work of the Department through the help of the trained instructors of the schools, and the preparation of a larger number of students for work in the Faculty of Agriculture of the University.

The courses of the schools have been subjected to progressive adjustment to needs arising from experience and from natural expansion in educational services.

The detailed reports of the Principals of the schools follow:

### CLARESHOLM SCHOOL OF AGRICULTURE

SIR,—I beg to submit the report of the School of Agriculture, Clareholm:

On October 31, 1917, the Provincial School of Agriculture at Clareholm commenced work with the following staff:

Mr. W. J. Stephen, B.A., B.S.A., Principal and Instructor in Field Husbandry.

Mr. H. W. Scott, B.S.A., Instructor in Animal Husbandry.

Mr. A. E. Qually, B.S.A., Instructor in Mechanics.

Mr. J. C. Hooper, M.A., Instructor in Science.

Mr. Ralph Huestis, B.S.A., Instructor in English and Mathematics.

Miss Myrtle Hayward, Instructor in Household Science.

Miss Grace Robertson, Assistant Instructor in Household Science.

Mr. H. S. Pearson, Instructor in Dairying.

Mr. A. W. Foley, Instructor in Poultry.  
 Dr. P. R. Talbot, Instructor in Veterinary Science.  
 Miss Annie McKenzie, Instructor in Home Nursing.  
 Miss Mabel Moir, Stenographer.

On January 1, Mr. H. R. Sprague was appointed Instructor in Blacksmithing and Horse-shoeing as Assistant to Mr. A. E. Qually, the regular Instructor in Mechanics.

Mr. Ralph Huestis, B.S.A., who was a returned soldier, found that his health had sufficiently recovered to allow him to return to the fighting line, so he resigned from the staff and Mr. Bruce McClelland, B.Sc., took his place for the balance of the year as Instructor in English and Mathematics.

Miss Leora Schoof succeeded Miss Mabel Moir on January 1, 1918, as stenographer.

The following special lecturers gave instruction at the School during the year:

Mr. H. A. Craig, Deputy Minister of Agriculture.  
 Mr. Sydney Carlyle, Superintendent of Demonstration Farms.  
 Mr. Alex. Galbraith, Superintendent of Fairs and Institutes.  
 Mr. W. F. Stevens, Live Stock Commissioner.  
 Mr. James McCaig, Editor of Agricultural Publications.

The following students registered for the year's work:

<i>First Year Girls</i>	<i>Address</i>
Josie Mosley .....	Claresholm
Mary Peirce .....	Claresholm
Martha Lange .....	Grassy Lake
Leah Burns .....	Burdett
Ona Neff .....	High River
Edna McIntosh .....	High River
Alma Bratton .....	Spring Point
Grace Harrad .....	Brocket
Dollie Smith .....	Pancras
Belle Bannon .....	Warner
Hildegard Kuehn .....	Blakesville
Gertrude Honeysett .....	Coaldale
Ethel Matthews .....	Reid Hill
Jerusha Campbell .....	Okotoks
Hilda Malmberg .....	Retlaw
Gladys Gordon .....	Whitla
Ethel Slaymaker .....	Barons
E. M. Simpson .....	Rosebud Creek

<i>Second Year Girls</i>	<i>Address</i>
Ida Litchfield .....	Dinton
Ida Larsen .....	Claresholm
Emily Straughan .....	Parkland
Ruth Caldwell .....	Warner
De Willa Little .....	Lomond
Marjorie Shapley .....	Taber

<i>First Year Boys</i>	<i>Address</i>
Harold Baker .....	Pincher Creek
Harry Popkes .....	Retlaw
Wendall Fiala .....	Deering
Nels Peterson .....	Grassy Lake
Everett Boone .....	Grassy Lake
Milton Peirce .....	Claresholm
John Peirce .....	Claresholm
Frank Smith .....	Milk River
Robert Burns .....	Burdett
Harvey Gilroy .....	Whitla
Meldrum Amos .....	Seven Persons
Paul Hinds .....	Whitla

<i>First Year Boys</i>	<i>Address</i>
Golden Allred .....	Hill Spring
Magrath Merrill .....	Hill Spring
Arthur Edwards .....	Medicine Hat
Lorenzo Davies .....	Hill Spring
Grant Caldwell .....	Retlaw
Walter Dersch .....	Macleod
John Whitesel .....	New Dayton
Carl Hild .....	Prosby
Robert Thompson .....	Carmangay
Logan Mounkes .....	Okotoks
Alvan Lyon .....	Barons
Albert Olson .....	Stavely
Henry Lindstedt .....	Stavely
Arthur Tompkins .....	Gladys
Felix Biraud .....	Taber
William Wilson .....	Strathmore
Walter Olson .....	Cardston
John Billingsly .....	Glenwoodville
Lester Lybbert .....	Glenwoodville
Arnold Loose .....	Glenwoodville
Milo Brower .....	Blackie
William Watt .....	Longview
Ernest Martin .....	DeWinton
Clarence Martin .....	DeWinton
Francis Simpson .....	Carmangay
Stanley Glass .....	Summerview
John E. Carlson .....	Carmangay
William Campbell .....	Hill Spring
Lloyd Miller .....	Del Bonita
Walter Jenkins .....	Twin Butte
Stanley Lamb .....	Claresholm
Roy Drake .....	Blackie
William Brewster .....	Macleod
Chas. Strangway .....	Claresholm
Jay Anderson .....	Magrath
John Gates .....	Retlaw
James Ashmore .....	Reid Hill
Sigurd Berger .....	Parkland
Bruno Somerfeldt .....	Taylorville
Stanley Fenton .....	Richmond, Sask.
John McKay .....	Waldo, B.C.
Burton McDiarmid .....	Alderson
Victor Bertrand .....	Milo
Lamont Ohlson .....	Millarville
Robert Hendry .....	Bindloss
Otto Wolf .....	Long Coulee
Earl Altizer .....	Lawndale
Robert Clark .....	Lethbridge
Howard Haney .....	Barons
Harry McMillan .....	High River
Albert Orcutt .....	Commerce
Victor Ohman .....	Iddesleigh
Harold Pederson .....	Amethyst
A. J. Goodyear .....	Bow Island
Perry Miller .....	Gem
Harvey Fletcher .....	Chicago, Ill.

<i>Second Year Boys</i>	<i>Address</i>
Ernest Mosley .....	Claresholm
Andrew Olsen .....	Stavely
O. Long .....	High River
Edward Caron .....	Aldersyde
H. Bingham .....	Magrath
Jesse Cress .....	New Dayton
George Davies .....	Claresholm
Wesley Smith .....	Cravath Corners

<i>Second Year Boys</i>	<i>Address</i>
Joseph Harris .....	Retlaw
Francis McDonald .....	Vulcan
George S. Gordon .....	Cardston
Enos Leitch .....	Alderson
Nelson Fraser .....	High River
David McDonald .....	High River
Ernest Buckingham .....	Claresholm

Making a total of one hundred and seven students.

*Students' Progress.*—The work of the year has been very satisfactory. The age of the students averaged seventeen years, there being no students in the School of military age who are eligible for enlistment.

#### CLOSING EXERCISES.

In March of the spring of 1917, the closing exercises were held. Dr. H. M. Tory, President of the University, conferred diplomas on the following students:

##### *Diplomas in Household Science:*

Marie Caron .....	Aldersyde
Amy Straughan .....	Parkland
Lulu Winkler .....	Retlaw
Helen Wickson .....	Cayley
Rhoda Whitehead .....	Claresholm
Fanny Coombs .....	Cardston
T. A. Sundal .....	Taber

##### *Diplomas in Practical Agriculture:*

Milton Hansen .....	Aetna
J. D. Sears .....	Nanton
Ross Walker .....	Reid Hill
S. Schumaker .....	Claresholm
Leon Walker .....	Claresholm
C. Matlock .....	Champion
T. Graham .....	Warner
R. Pollock .....	Retlaw
L. Fitzpatrick .....	Lawndale
C. Fredell .....	Blackie
W. Greenlee .....	Lawndale
C. Dullea .....	Stavely
John Nelson .....	Claresholm
I. Gehman .....	Okotoks
O. Rice .....	Claresholm

#### COURSE IN AGRICULTURE.

The School is well equipped, enabling the instructors to carry out in a practical manner the different agricultural subjects taught. All instruction has a direct bearing on the practical side of farming as it is in Southern Alberta. The following subjects are taught:

*First Year Boys.*—Field Husbandry, Animal Husbandry, Blacksmithing, Concrete Work, Carpentry, Gas and Steam Engineering, Plumbing, Veterinary Science, Farm Dairying, Poultry, Horticulture, Chemistry, Physics, Botany, Farm Bookkeeping, English, Public Speaking, Mathematics, Butchering, and Curing Meat.

*Second Year Boys.*—Field Husbandry, Animal Husbandry, Veterinary Science, Dairying, Poultry, Horticulture, Chemistry, Farm Management, Farm Bookkeeping, English, Mathematics, Soil Physics, Botany and Entomology, Bacteriology, Butchering, Curing Meats, Public Speaking, Farm Mechanics, Building Construction and Concrete.

#### COURSE IN HOUSEHOLD SCIENCE.

*First Year Girls.*—Cooking, Sewing, Laundry, Household Administration, Physiology and Anatomy, Home Nursing, Sanitation, Foods, English, Mathematics, Horticulture, Farm Dairying, Poultry, Chemistry, Embroidery and Home Bookkeeping.

*Second Year Girls.*—Cooking, Sewing, Household Administration, Hygiene, Home Nursing, Household Chemistry, English, Mathematics, Home Bookkeeping, Horticulture, Farm Dairying, Poultry, Bacteriology, and Embroidery.

#### HONOR ROLL.

##### *Killed in Action:*

Herbert Campbell  
Enos Leitch

##### *Prisoner of War in Germany:*

H. Middleton

##### *Enlisted or on active service:*

J. McDonald  
Stewart Ellis  
E. Buckingham (Invalided home)  
Lieut. J. J. Jamieson (Invalided home)  
J. Horner  
H. W. Jackson  
John Walker  
P. Peterson  
R. G. McClean  
Phil Williams  
Walter Harvey

W. A. Porter  
Harold Hansen  
T. A. Sundal  
Lester Barr  
H. J. Hirsch  
J. Mitchell  
C. SeEVERS  
Walter Clark  
William Edey

#### EXTENSION WORK.

*School Fairs.*—Under the direction of the Provincial Department of Agriculture and in co-operation with the Educational Department, during the year 1917, Agricultural instruction was given to two hundred and ninety-six boys and girls of twenty-one rural schools in the vicinity of Claresholm. Instruction was given in the raising of six kinds of vegetables; six kinds of annual flowers; making weed collections; making insect collections; raising of chickens and caring for colts and calves. Garden seeds, flower seeds, potatoes and eggs were supplied and distributed to the pupils by the Provincial Department of Agriculture. The vegetables and flowers were raised in well arranged gardens at the children's homes. Two boys of each school were appointed to keep the work organized, especially during the summer holidays, and to aid in the bringing in of the products to the School Fair.

*School Fair at Sedgewick.*—Mr. H. W. Scott conducted work with the children in the rural schools surrounding Sedgewick, similar to that conducted at Claresholm.

*Girls' Clubs.*—In conjunction with this work nineteen Girls' Clubs, with an average of about eight members in each club, were organized in the vicinity surrounding Claresholm. Meetings were held for three weeks for the purpose of giving demonstrations in sewing and cooking.



The results of the boys and girls' work were exhibited at the School Fair held at the School of Agriculture, Claresholm, on September 5, 1917. Many suitable prizes were awarded by local business men, the T. Eaton Co., and the Department of Agriculture. Over one thousand people were present to inspect the two thousand exhibits. General enthusiasm was manifested by the children and their parents.

*Cultural Work.*—Cultures for the inoculation of different kinds of legume seeds are grown at the Claresholm School and supplied to the farmers of Alberta, British Columbia, and Saskatchewan. These cultures are sent out from the first of May until the end of June. About six hundred and twenty-five cultures for the inoculation of alfalfa, field-peas, alsike, sweet clover, and red clovers were supplied in 1917.

*Meteorological Records.*—These records are taken daily at the School of Agriculture in which are recorded the minimum and maximum temperatures and the precipitation. This information is supplied monthly to the Dominion Meteorological Branch. During 1917, from January to December, there was a precipitation of 14.48 inches, in terms of rain. Of this amount, there were

.622 in. rain in May  
3.64 in. rain in June  
3.23 in. rain in July.

*Demonstration Train.*—During June and July of the past summer a demonstration train was run by the Department of Agriculture over various railroad lines in the Province. The Claresholm staff fitted up three cars which represented the work done by the students at the Schools of Agriculture. One of these cars was equipped to represent the work done by the Household Science Department. The second car was fitted up with work from the Blacksmith and Carpentry shops of the three Schools of Agriculture. The third car was fitted up with grains and grasses of the Province. The Seed and Weed Branch assumed half the responsibility of fitting this car with weeds.

*Institutes, Short Course Schools, Judging at Fairs.*—The services of the staff were required frequently during the summer as judges for the various fairs in the Province. Quite a large number of Institute meetings were addressed in Southern Alberta during the past year. Several members of the staff were required to assist in demonstrations and lectures at the Winter Short Courses held throughout the southern part of the Province. During the months of April, May and June, Miss Hayward, Instructor in Domestic Science, put on Institute meetings for the Women's Institute Branch at different points throughout Southern Alberta.

#### EXCURSION TO THE SCHOOL OF AGRICULTURE AT CLARESHOLM, DURING THE SUMMER OF 1917.

On July 29, the Department of Agriculture, Edmonton, held an excursion to the School of Agriculture at Claresholm. About eight hundred people were in attendance from numerous points throughout the south.

Lunch was served in the Assembly Room of the Agricultural School at noon when the train arrived and before its departure in the evening. The day was spent in looking over the experimental work at the Agricul-

tural School and in going over the Demonstration Farm and viewing the live stock. An excellent programme of addresses was given during the afternoon, the speakers being:

Honorable Duncan Marshall, Minister of Agriculture.  
 Mr. H. A. Craig, Deputy Minister of Agriculture.  
 Professor Cutler, Agricultural College, Edmonton.  
 Professor Dowell, Agricultural College, Edmonton.  
 Mr. Sydney Carlyle, Supt. Demonstration Farms.  
 Principal W. J. Stephen.

#### WOMENS' INSTITUTE CONVENTION.

Delegates from the various Women's Institutes throughout Southern Alberta met in convention at the Agricultural School at Claresholm, on November 3, 4 and 5, under the direction of Miss MacIsaac, Superintendent of Women's Institutes. There was a varied programme of addresses and lectures. Miss Hayward gave demonstrations in Domestic Science work.

#### EXPERIMENTAL WORK.

There are twenty acres adjacent to the School allotted for experimental work. On this land various experiments are conducted. The results obtained from these are used in the instruction given in the School and at various farmers' meetings. The following experiments were conducted during 1917:

Variety tests with grasses, alfalfas, fodder crops, root crops, flax, potatoes, wheat, oats, barley, peas, millets, buck-wheats, vegetable crops, small fruits, trees, shrubs, and flowers.

Depth of plowing, depth of planting, dates of seeding, spring vs. fall plowing; stubbling-in vs. spring plowing vs. fall plowing; potato land for cereals, grasses, and clovers, and other crops, vs. corn land—vs. summerfallow.

Harrowing growing crops vs. not harrowing; use of sub-surface packer, use of surface packer; use of press drills; use of disk drills.

Hot beds and cold frames are operated each spring. Much work is done each year on the selection of varieties of cereals. Each spring, students who wish it are supplied, at market price, with one-half bushel of Elite Marquis seed, and Elite Banner oats to sow on their own farms.

#### LIVE STOCK FOR SCHOOL WORK.

For live stock demonstrations at the School, the different breeds of stock are provided by the Demonstration Farms. We wish to take this opportunity to thank those farmers and stock breeders in the community who have so generously allowed the School the use of their stock for classroom purposes and for practice feeding for the boys. The list includes:

Mr. Thos. Moore	44 Ranch, Herefords
Mr. T. C. Milnes	Angus Cattle, Berkshire Hogs and Horses
Mr. C. Tillotson	Clydesdale Horses and Dairy Cows
Mr. M. Wall	Horses and Oxford Sheep
Mr. D. Van Horn	Belgian and Grade Horses
Mr. A. Lange	Oxford Sheep

Some outstanding specimens of the various breeds were also loaned the School by the following breeders in the Province:

Mr. Jos. Laycock .....	Okotoks
Thornburn & Riddle .....	Davisburg
Mr. W. J. Thorn .....	Aldersyde
Senator P. Talbot & Son ..	Lacombe
Mr. F. Collicut .....	Calgary
Mr. Chas. Elliott .....	Sandy Lake, South Edmonton
University of Alberta .....	Edmonton
Mr. Geo. Ball .....	West Salisbury
Mr. J. Stewart .....	Stettler
Mr. H. Watkins .....	Olds

#### THE ALUMNI.

The Alumni has been organized for a little over a year and a half. Its object is to assist the students who have left the School to keep in touch with each other, and with the School, for their own pleasure and profit. Re-unions have been held at the time of the excursion to the School in the summer, and at the time of the closing exercises in March. In March of this year the organization outlined a programme of work including records on the farms of its members from which valuable data will be available in the next few years that should be a guide to its members along proper lines of profitable farming in this Province. These problems will be discussed in detail by the students at their annual reunions. At present the girls, through the Women's Institutes, U.F.W. Associations, and similar organizations, are assisting in the improvement of the community life of their own districts.

#### THE MAGAZINE.

Each year a magazine is published by the students and staffs of the three Agricultural Schools. In this magazine the activities of the students are well portrayed.

#### STUDENTS' ORGANIZATIONS.

In addition to the purely academic work, students have the following organizations:

*The Students' Council.*—This organization is for the purpose of self-government.

*The Y.M.C.A.*—Meetings are held every Sunday afternoon in the Agricultural School.

*The Athletic Association.*—An athletic association was organized by the students soon after the School opened. This organization is of considerable benefit to the students as it encourages many kinds of sport. A Field Day was held early in the term at which some creditable records were made. An Athletic Night, once a week, throughout the term, was also beneficial. The girls took up club-swinging and other physical exercises, and the boys conducted boxing and wrestling tournaments. The Canadian Standard of Efficiency Tests in athletics was introduced and thirteen bars were won by the boys. The skating rink on the School grounds furnished healthy and enjoyable exercise, and the girls' and boys' hockey teams made creditable showings in the few games played with outside teams.

Respectfully submitted,

W. J. STEPHEN.

*Principal.*

## OLDS SCHOOL OF AGRICULTURE

SIR,—I beg herewith to submit the fourth annual report of the Olds School of Agriculture, covering the School year, together with the extension and other work that has been undertaken by the Staff.

## CHANGES IN STAFF.

On account of the fact that his brother had enlisted for overseas service Mr. Longman, Agronomist, resigned on March 31, 1917, to take over the work of the home farm in Manitoba. He was succeeded by H. Saville, B.S.A., who, however, resigned on July 1, 1917. We were without an Agronomist until November 1, 1917, then Mr. N. S. Smith, B.S.A., was appointed. Miss E. Cumming, in charge of the Domestic Science branch, resigned, and was succeeded by Miss M. Birkett, who began her work on December 1. Miss B. McDermid of the Women's Institute branch taking charge of the Domestic Science work for November, the opening month of School term. Mr. J. G. Taggart, Science Instructor, resigned to enlist for overseas service, but in view of the fact that Instructors for Agricultural schools were so scarce, the Military authorities allowed him to resign, and he resumed his duties again on November 1, 1917. Mr. R. M. Scott, B.A., was also appointed to succeed Mr. J. H. McNally as Instructor in English and Mathematics.

## THE 1917-18 STAFF IS AS FOLLOWS:

W. J. Elliott, B.S.A., Principal.  
 J. H. Taggart, B.S.A., Instructor in Science.  
 G. R. Holeton, B.Sc., Instructor in Mechanics.  
 E. E. Brown, B.S.A., M.S., Instructor in Animal Husbandry.  
 N. S. Smith, B.S.A., Instructor in Agronomy.  
 R. M. Scott, B.A., Instructor in English and Mathematics.  
 Miss M. Birkett, Instructor in Household Science.  
 Miss M. E. Storey, Assistant Instructor in Household Science.

In addition to this permanent staff the Schools of Agriculture are fortunate in being able to secure the assistance of various Officials from the Department of Agriculture during the winter months. As these officials are experts in their various lines, it gives the students in the Schools of Agriculture instruction that would be otherwise difficult to secure.

## INSTRUCTORS WHO HAVE GIVEN SPECIAL COURSES.

Dr. P. Talbot, Instructor in Veterinary Science.  
 Miss A. McKenzie, Instructor in Nursing.  
 A. W. Foley, Poultry Superintendent.  
 H. S. Pearson, Instructor in Dairying.  
 W. J. Beckett, Assistant Instructor in Dairying.  
 Wm. Grant, Instructor in Blacksmithing.

## THE SCHOOL YEAR.

The Olds School of Agriculture has been filled to capacity with students again this year. In all we have one hundred and forty-seven students registered. These are divided according to classes as follows:

Boys and Girls taking first year Agriculture .....	59
Girls taking first year Household Science .....	27
Boys taking second year Agriculture .....	21
Girls taking second year Household Science .....	18
Returned Veterans taking Agriculture .....	22
Total .....	147

With the war still on we expected that our enrolment might be smaller this year than last, but contrary to our expectations our total attendance is larger than last year. Our attendance is materially increased, however, by the twenty-two returned Veterans. Without these our enrolment is only seven less than last year. However, the age, especially of boys taking the Agricultural course, has materially decreased. When the Schools opened for work in 1913 the average age of the boys was between twenty-one and twenty-two years, while this year the average age is just eighteen. A complete list of this year's students, with their addresses, will be found appended to this report.

We would like to mention particularly the great difficulty we had in finding suitable accommodation for our students this year. We realize the fact that the people of Olds, in many instances, inconvenienced themselves to make room for students, and we appreciate that fact fully. But whether it was that the Town had more citizens than usual, or whether the large number attending the High School from the country helped to crowd matters, one fact stood out clearly and that was that the accommodation was packed to its utmost limit. This crowding was so marked that in many instances the students could not do their best work.

#### LAST YEAR'S GRADUATES.

Last spring twenty-one diplomas were granted by the School. Seven of these were for girls in Household Science and fourteen for boys in Agriculture. The names and addresses of those receiving diplomas are as follows:

##### *In Household Science.*

Anna Archibald .....	Lochinvar
Hattie Cross .....	Olds
Ethel Curtis .....	Olds
Violet Frost .....	Olds
Edith McKinnon .....	Red Deer
Ella Pritchard .....	Bawlf
Gladys Trimble .....	Red Deer

##### *In Agriculture.*

Frank Addison .....	Castor
Henry Backstrom .....	Highland Park
D. L. Campbell .....	Bowden
J. A. Hughes .....	Didsbury
William Jacobson .....	Stettler
Harold Lund .....	Dowling Lake
John Martin .....	Dalroy
Joseph Marsden .....	Excel
Edward Phillips .....	Langdon
Roy Roberts .....	Shepherd
Harry Switzer .....	Lacombe
G. B. Sanford .....	Olds

The graduation exercises were held in the Assembly Room which was filled to capacity. After numerous orchestral and solo numbers Captain Pearson, returned Veteran, gave a very interesting talk regarding the work of the Y.M.C.A. at the front. Dr. Tory, President of the Alberta University, followed with an inspiring address on education. The diplomas were presented by the Hon. Duncan Marshall. During the meet-

ing the members of the second year presented an enlarged picture of the Graduating Class to the School, and thus was the year's work brought to a close.

#### STUDENTS OF THE O.S.A. DOING THEIR BIT.

Before passing on to the other work of this Institution we feel that a word ought to be said regarding the students of the O.S.A. who have donned the khaki in the defence of democracy, freedom and International justice. So far as we have been able to ascertain forty-four of our students and Instructor J. G. Taggart have enlisted from this School. Six of these brave lads have paid the supreme price in France; and eleven have been wounded. The Olds School of Agriculture honor roll is as follows:

##### HONOR ROLL.

##### *Killed in Action.*

Pte. Raoul Simon, Trochu (Class '14), killed in Champagne, France.  
 Pte. Doan Quantz, Penhold (Class '15), killed in France.  
 Pte. John Hutchison, Olds (Class '16), killed in France.  
 Pte. Horace Gallagher, Calgary (Class '16), killed in France.  
 Pte. Arthur McAllister, Penhold (Class '14), killed in France.  
 Pte. Wm. Rodgers, Penhold (Class '14), killed in France.

##### *Wounded or Gassed in Action.*

Lieut. Roy Burns, Ponoka (Class '14), 31st Batt.  
 Pte. Wm. Whiteside, Penhold (Class '14), 12th C.M.R.  
 Pte. Angus McNeil, Chesley, Ont. (Class '15), 66th Batt.  
 Lce.-Cpl. J. A. Goldie, Olds (Class '15), 3rd Pioneer Batt.  
 Pte. Herbert Batley, Olds (Class '15), 56th Batt.  
 Pte. Otto Miller, Olds (Class '15), 138th Batt.  
 Pte. John McRae, Delburn (Class '16) 17th Canadian Reserve.  
 Sgt. Harold Thornton, Red Deer (Class '15), 187th Batt.  
 Pte. Richard Reddon, Olds (Class '15), 187th Batt.  
 Pte. Robert Hutchison, Olds (Class '16), 187th Batt.  
 Pte. Otto Jensen, Olds (Class '16), 158th Batt.

##### *At or on Their Way to the Front.*

Cpl. J. G. Taggart (Science Instructor), Army Medical Corps.  
 Brig. R. Georges-Figoral (Class '14), Leo, Alta., 26 "C" Dragoons.  
 Pte. B. E. Hammond, Calgary (Class '15), Cycle Corps.  
 Pte. M. Moir, Stirling, Scotland (Class '15), 51st Batt.  
 Pte. G. A. Whiteside, Zenith (Class '15), 51st Batt.  
 Pte. Arthur Kemp, Calgary (Class '16), 196th Universities Batt.  
 Pte. Wm. Black, Hope Valley (Class '16), Duke of Connaught's R. C. Hosp.  
 Pte. Mac. B. McColl, Colholme (Class '15), 175th Batt.  
 Pte. L. Huskins, Pitcox (Class '16), 187th Batt.  
 Pte. A. Campbell, Bawlf (Class '14), 187th Batt.  
 Pte. Milo Huffman, Langdon (Class '16), 187th Batt.  
 Pte. Ed. Farquharson, Eye Hill (Class '16), Cycle Corps.  
 Pte. Jack Peckham, Olds (Class '16), Cycle Corps.  
 Pte. Campbell Lindsay, Eye Hill (Class '15), Cycle Corps.  
 Pte. Edward Gibb, Munson (Class '16), 191st Batt.  
 Pte. Osmond Ennis, Alix (Class '16), 191st Batt.  
 Pte. Thory Johnson, Innisfail (Class '14), 1st Can. Division.  
 Pte. Leonard Blois, Sheerness (Class '15), 202nd Batt.  
 Pte. W. A. Bicknell, Didsbury (Class '15), 137th Batt.  
 Pte. Donald Black, Calgary (Class '15), Lethbridge Artillery.  
 Pte. Thomas Wilkerson, Leduc (Class '14), 202nd Batt.  
 Pte. Harold Hopkins, Bentley (Class '16), in the Navy.  
 Pte. P. H. Menzies, Chilliwack, B.C. (Class '15), 237th Batt.

Pte. Lyle Russell, Ponoka (Class '16), Aviation Corps.  
Pte. Lloyd Danford, Ponoka (Class '15), Aviation Corps.  
Flight Lieut. Geo. Gorman, Calgary (Class '16), Aviation Corps.  
Pte. Frank Cosgrove, Gleichen (Class '16), — Batt.

Note.—Mr. Taggart was discharged November 28 by special authority, it being impossible to replace him as an Instructor in the School of Agriculture.

#### EXTENSION WORK.

*School Fair Work.*—During the summer of 1917 the School Fair work was greatly increased over the previous year. In all sixty-six Schools were included as compared with twenty-two in 1916. Mr. J. G. Taggart was given special charge of the Fairs at Trochu and Olds, while Mr. G. R. Holeton had charge of those at Bowden and Derbys town. Mr. Taggart, however, enlisted in the Army Medical Corps in May and the care of his share of the work fell to the undersigned. All Fairs were enthusiastically supported by both teachers and scholars as was evidenced by the magnificent exhibits that were presented by the various Schools. The following notes will give briefly particulars regarding the volume of work.

Fairs were held at four centres:—Trochu, Derbys town, Bowden and Olds. Sixty-nine schools were competing. There were fifteen hundred entries and the total attendance at the four fairs would be about three thousand people.

#### BOYS AND GIRLS' PIG CLUB.

The organization of a boys and girls' Pig Club in connection with the School Fairs was perfected this year. Through the liberality of the Bank of Commerce and the enthusiastic support and interest of the Manager, Mr. R. N. Aylward, funds were provided for the purchase of young weaned sows to be distributed among the boys and girls of the district. The particulars regarding this work were as follows:

- (1) The Bank of Commerce furnished \$30.00 to each boy and girl to purchase two small registered sows.
- (2) In order to make it a business undertaking the Bank charged eight per cent. on the money loaned, but returned, in the way of cash prizes at the Fall Fair, six per cent. out of the eight per cent. that had been charged on the notes.
- (3) Two breeds were desired by the boys and girls taking part,—the Duroc Jersey and Berkshire.
- (4) In all forty-eight sows were distributed.
- (5) All boys and girls were to feed and care for their own animals.
- (6) The undersigned selected all sows that were purchased.
- (7) An insurance scheme was introduced at \$1.00 per pig to cover loss by death. Any part of this fund not required during 1917 to be carried over to 1918 and thus reduce the dues for that year.
- (8) All pigs were registered in the names of the respective boys and girls.



(9) It was at first arranged that each boy and girl should sell one of the sows about December 31, 1917, in order to liquidate the note at the Bank. Later, however, the Bank was so well pleased with the way the matter was developing that it decided to carry the notes over, so that all who wished might retain both their sows.

(10) First class males have been secured and it is the intention to raise litters of pigs next spring.

(11) The boys and girls will thus be in a position to supply choice sows to other clubs that may be started during 1918; but best of all they have received first class stock of their own, in which they are keenly interested.

All who saw the exhibit of pigs at the Olds Boys and Girls' Fair were pleased with the character of the stock secured and the evident care that it was receiving at the hands of the boys and girls.

#### AGRONOMY WORK.

The Agronomist at each School conducts certain experimental work with grains, grasses, etc., in order to study the peculiar conditions of each locality. Mr. Saville continued the work that had been undertaken by Mr. Longman. One line of work was the finding of varieties of grain best suited to the district. To secure these data, rather extensive experiments were undertaken with regard to the various varieties of wheat, oats and barley, and we hope soon to be able to report fairly definitely with regard to some of these crops. It will be appreciated, of course, that one, two and even three years' work is not to be thoroughly relied upon and records of this kind only become valuable when a large number of years prove the result to be correct.

Cultural methods is another line of experiment in the Agronomy division. The cultural plots have been undertaken with a view to studying our new soils and if possible to find the best methods of handling them.

A third line of work undertaken has been that with grass and legume crops. While the Olds district is very well adapted to the growing of timothy, yet so far very little is known with regard to what other grasses and legumes will do on the land. A large number of plots of various kinds of grasses have been grown and will be reported on from time to time. In addition considerable work has been done with garden crops which include all classes of vegetable and tests have also been made with various varieties of turnips and mangolds. The same may be said with regard to these latter as was said with regard to the cereals. It is certainly not wise to report on the adaptability of crops to a district until a sufficient number of years have proved our results to be fairly correct.

#### VEGETABLE EXPERIMENTS.

Again this year we have sought for information regarding the variety of vegetables that are best adapted to this locality. The results of this work will be submitted as a separate report and we need only say here

that practically all vegetables, with the exception of beans, corn, tomatoes, etc. do excellently. The vegetables and the number of each tried were as follows:

Vegetables	Varieties Tried	Vegetables	Varieties Tried
Potatoes .....	25	Lettuce .....	3
Swedes .....	12	Parsnips .....	3
Turnips .....	7	Cabbage .....	6
Mangolds .....	5	Cauliflower .....	3
Sugar Beet .....	2	Onion sets .....	2
Beet .....	4	Onion seed .....	3
Beans .....	8	Celery .....	3
Carrots .....	5	Tomatoes .....	3
Peas .....	6	Corn .....	4

In addition to the above, one variety of each of the following was grown: Brussels sprouts, kale, rhubarb, kohl-rabi, barecole, spinach and salsify.

#### EXPERIMENTAL UNION.

An Experimental Union was organized among the students for the purpose of continuing experimental work on the home farms. This work was organized in Mr. Grisdale's time and good work was done. During the two last years, owing to pressure of work from other quarters, it has been impossible to give the work the attention it deserves. Recently, however, an Alumni Association has been organized and we hope that by a co-operation between the two organizations the Experimental Union work may be continued and firmly established. Mr. Smith, the present Agronomist, has had experience in this class of work and is taking hold of the organization in a way that points to good results.

#### *Co-operation with the Demonstration Farm.*

The hearty co-operation between those of the School of Agriculture and the Manager and the Staff of the Demonstration Farm has been marked. While the Demonstration Farm is running more or less as a commercial undertaking, yet the School of Agriculture has free access to all the stock for instructional purposes. This, of course, requires close co-operation, and we wish to take this opportunity to express our appreciation of the assistance and help rendered to us by the Farm Manager, Mr. Manhard.

#### INSTITUTES AND SHORT COURSE SCHOOLS.

During the winter the large attendance of students keeps the Staff of the School pretty closely confined to instructional work, but from time to time the various members of the Staff are called upon visit various points to help in the matters of Farmers' Institutes and other meetings. The services of the Staff are also frequently required during the summer as judges for the various Fairs in the Province. This work no doubt is appreciated by those on the outside, but we think it is equally appreciated by the members of the Staff because it brings them in touch with the men who are doing the actual work on the farm in the Province and consequently the Staff is the better equipped for the instructional work that is demanded of them during the winter months.

## SPECIAL TRAIN.

During July and August of the past summer a special train was run over certain railroads in the Province by the Department of Agriculture. Principal W. J. Stephen of Claresholm, had charge of the preparing of three cars to represent the work of the Schools of Agriculture. Mr. George Holeton, of Olds, was asked by Mr. Stephen to prepare the mechanics' car. Mr. Holeton not only prepared the car but accompanied it throughout the run.

We believe that nothing that we do in the year brings the work of the Schools so clearly to the attention of the general public as is done through the medium of the Demonstration train. Our students are, of course, our best advertisers, but next to them the demonstration trains seem to advertise our Schools most thoroughly. Many favorable comments were heard with regard to the students' work as exhibited on the train. This was true of both the Agricultural and Household Science exhibits.

## DAIRY TEST WORK.

During the past three years very considerable assistance has been given to the farmers of this district in the testing of their dairy herds. During these years a member of the School staff visited the farms, took samples of the milk, tested it and kept the records. It was felt, however, that inasmuch as this work had been initiated by the Schools if it were to be of real value to the farmer, he ought to become sufficiently interested to take the samples himself and keep his own records. This year word was sent to all that the School was prepared to do all the testing if the dairyman would take the samples of milk and bring them to the School. A few have done this but it has not been carried out very regularly. The late spring and tremendously busy season, with the shortage of farm help, made it almost impossible for the farmers to give this matter the attention it deserved.

## CORRESPONDENCE WORK.

The correspondence in connection with the office keeps up to a high average. Considerable of this correspondence is with reference to the routine of the School and School activities, but we find a growing correspondence in all branches with respect to agricultural problems of various kinds. We feel that this is an important field of usefulness for the School and endeavor to give it careful attention. It may be interesting to give in detail the correspondence by years.

*Letters written from the Olds School of Agriculture:*

June 21st, 1913, to June 30th, 1914.....	3,793	letters
June 30th, 1914, to June 30th, 1915.....	2,649	"
June 30th, 1915, to June 30th, 1916.....	2,221	"
June 30th, 1916, to June 30th, 1917.....	3,055	"
June 30th, 1917, to Dec. 31st, 1917 (6 mos.) .....	1,513	"

Average per year .....2,929 "

It will be remembered that the above does not include the circulars, pamphlets, etc., that have been sent out to newspapers, to students and others.

## SCHOOL BUILDING OPEN TO PUBLIC.

There is scarcely a work day in the year when the School of Agriculture is not open from nine in the morning until six o'clock at night for any service that may be rendered. The U.F.A., Women's Institute and many other organizations use the School for most of their meetings.

## LIST OF 1917-18 STUDENTS.

*First Year Girls in Household Science:*

Ambrose, Birdie	Cremona
Bakke, Ida	Ankerton
Bishop, Kathleen	Drumheller
Brebner, Mary E.	Spruce Grove
Clarke, Elvira E.	Olds
Calloway, Mrs. R.	Olds
Derbyshire, Sadie	Millerfield
Gellatly, Margaret	Gellatly, B.C.
Harrison, Maisie J.	Gadsby
Hughes, Mary A.	Didsbury
Jarratt, Nellie L.	Sedalia
Ling, Bertha	Delia
Lawson, G.	Wimborne
Lehner, Hilda	Daysland
Lohner, Laura	Daysland
Lewis, Edna N.	Monitor
Lambert, Myrtle M.	Munson
Martin, Annie	Monitor
Murray, Barbara	Strome
McFarquhar, Jessie	Calmar
Simpson, Margaret	Innisfail
Smeltz, Edith	Olds
Smith, Florence	Olds
Short, Annie G.	Gwynne
Simmons, Mamie	Olds
Witard, Hilda	Cremona
Wright, Susie E.	Lacombe

*Boys and Girls in First Year Agriculture:*

Ardley, Harold	Tees
Ambrose, Chas. J.	Olds
Baillie, Alex.	Elnora
Barrett, Geo. A.	Calgary
Bayfield, E. G.	Calgary
Benson, Harold	Nightingale
Barnhard, C. A.	Fleet
Barton, Harry	Lougheed
Bolin, Edward P.	Munson
Bradshaw, Gordon	Tees
Brigg, Fred J.	Edmonton
Berquist, Clarence	Carsland
Covlin, Tjefund	Loyalist
Doering, E.	Bulwark
Engel, Walter S.	Strome
Gibb, Clifford	Calgary
Gugin, Elmer	Siebold
Hare, Arthur C.	Tees
Jones, Lyle H.	Rosebud Creek
Kimmel, Bert	Acme
Keer, F. Raymond	Cheadle
Lock, Carl H.	Fraserton
Locke, Jessie S.	Craigmyle
Lonneberg, Clarence	Dickson
Lewis, Robert E.	Monitor

*Boys and Girls in First Year Agriculture:*

Lane, Thos. ....	Castor
Loudfoot, Wm. G. ....	Lake Saskatoon
Marryat, Miss Sheila ....	Alix
Murphy, Gerald ....	Three Hills
Murphy, Athel ....	Three Hills
Moffat, Harold ....	Knee Hill Valley
McDonald, Howard ....	Grainger
McAra, Malcolm ....	Calgary
McIlvride, Robert ....	Rowley
McKinnon, Don. ....	Dalmeade
Price, S. H. ....	Veteran
Plummer, George ....	Cluny
Peacock, Bruce E. ....	Scottfield
Purdy, Chas. ....	Jenkins
Trimble, Delmer ....	Red Deer
Thompson, Reginald ....	Bently
Thorn, Harold N. ....	Ponoka
Robinson, Arnold ....	Cereal
Reddick, Elmer ....	Monitor
Reed, Fred ....	Calgary
Sebry, H. J. ....	Veteran
Shields, Jas. ....	Penhold
Turner, Clifford ....	Calgary
Tanche, John ....	Sylvan Lake
Thompson, Mrs. D. H. ....	Hardisty
Unger, Clarke ....	Tramping Lake, Sask.
Valentine, Ed. ....	Bulwark
Waldron, R. M. ....	Clive
Waldron, A. V. ....	Clive
Ward, Alfred H. ....	Sexsmith
Wilcox, Thos. ....	Bashaw
Young, Ernest ....	Sedalia

*Girls Taking Second Year Household Science:*

Browne, Lucy ....	Innisfail
Downey, Emma ....	Ethelton, Sask.
Scott, Gladys D. ....	Killam
Fletcher, Agnes ....	Delia
Hutchings, Marion ....	Calgary
Hammer, Nettie ....	Olds
Jacobson, Freda ....	Lacombe
Parker, Alia ....	Brant
Patterson, Zella ....	Olds
Plummer, Alice ....	Cluny
Rodburne, Alice ....	Crowfoot
Rodburne, Charlotte ....	Crowfoot
Robinson, Lorea ....	Oyen
Sergeant, Florence ....	Bawlf
Whiteside, Ethel ....	Zenith
Whiteside, Louise ....	Zenith
Waterston, Edith G. ....	Wetaskiwin
Waldron, A. M. ....	Clive

*Boys Taking Second Year Agricultural Work:*

Baird, Ralph ....	Strathmore
Coonifer, W. A. ....	Langdon
Dohl, C. P. ....	Standard
Doughty, J. L. ....	Nevis
Haines, Norman ....	Strathmore
Hutchings, S. ....	Calgary
Murphy, Chas. D. ....	Youngstown
Mather, Thos. ....	Stanmore
Flett, Chester ....	Three Hills
McDonald, W. D. ....	Grainger

*Boys Taking Second Year Agricultural Work:*

Phillips, Duane .....	Carsland
Robinson, S. C. ....	Flaxland
Ray, Lloyd .....	Carstairs
Seymour, Alvin .....	Donalda
Shott, Bernard .....	Flaxland
Siegrist, Howard .....	Mellon
Wilson, William .....	Milnerton
Wood, Ray .....	Carstairs
Weir, A. C. ....	Lougheed
Elvidge, Alfred .....	Edmonton
Law, James .....	Edmonton

*Returned Veterans Taking Special Agricultural Work:*

Baker, A. T. ....	Edmonton
Buckingham, R. ....	Calgary
Calloway, R. ....	Olds
Collingridge, J. ....	Edmonton
Dalcher, Arnold .....	Edmonton
Crowley, David .....	Edmonton
Elvidge, A. ....	Edmonton
Fox, J. T. ....	Olds
Gunn, W. G. ....	Edmonton
Hunt, J. E. ....	Edmonton
Kidd, Fred .....	Edmonton
Law, Jas. ....	Edmonton
Lambert, M. R. ....	Edmonton
McPherson, N. ....	Edmonton
Peebles, G. P. ....	Edmonton
Sinclair, Alex. ....	Edson
Standeven, Geo. ....	Edmonton
Tulley, Jas .....	Edmonton
Walters, T. ....	Edmonton
Walter, W. H. ....	Edmonton
Walker, C. C. ....	Edmonton
Warren, J. L. ....	Olds

It will be noted that the names of A. Elvidge and Jas. Law appear in the list of veterans and also among the second year students. Both these men commenced their work at Vermilion last year and by taking a summer's course during 1917 are now completing second year work with the regular course.

W. J. ELLIOTT.

*Principal.*

## VERMILION SCHOOL OF AGRICULTURE

SIR,—I beg to submit the report of the Vermilion School of Agriculture.

This report covers the work of the Vermilion School of Agriculture during the summer and fall of 1917 and the first month of 1918. It is the fifth year of operation for the Vermilion School of Agriculture.

The names of the members of the staff and the departments administered by each are as follows:

F. S. Grisdale, B.S.A., Principal and Instructor in Agronomy and Horticulture.

E. S. Hopkins, B.S.A., M.S., Instructor in Elementary Science and Farm Management.

W. G. Payne, Instructor in Animal Husbandry.  
 S. D. Snyder, B.Sc., Instructor in Farm Mechanics.  
 J. J. Loughlin, Instructor in English and Mathematics.  
 Miss A. M. Lavallee, Instructor in Household Science.  
 Miss R. M. Black, Assistant Instructor in Household Science.

Other instructors have visited the School at different times for the purpose of giving certain arranged courses. They are:

G. W. Scott, Dairy and Poultry.  
 P. R. Talbot, D.V.S., Veterinary Science.  
 Miss Annie McKenzie, Home Nursing.

#### ENROLMENT.

It is gratifying to be able to report an increased attendance in the School this year. In the first and second years of the School's operation the total enrolment in each case was fifty-five; during the third year's course it was fifty-eight; in the fourth year it was seventy-one and this year it is seventy-five. This attendance is made up as follows:—In the first year there are forty-three men and eight women; in the second year there are fourteen men and ten women.

Of the nineteen women registered during the School year of 1916-17 ten, or fifty-three per cent., returned this year to complete their course. This is a twenty per cent. better showing than a year ago and I feel sure that it is the result in part at least, of the new provision with the University which gives our women the same privilege as our men, that is, to continue their course along more advanced lines in the University for a certain period of time. After so doing they will have a recognized standing with the Department of Education and they will be qualified to teach.

In considering the attendance in the second year Agriculture it will be observed that the percentage of students returning to complete their course this year is below what it was a year ago. A year ago the second year constituted sixty-five per cent. of the registration in its first year; this year the men in our second year represent fifty-three per cent. of the regular first year students' enrolment last year. The total enrolment last school year in the first year was thirty-one, but five of this number were returned soldiers taking special work.

The following young men, whose ages vary from fifteen to twenty-eight, are registered at the Vermilion School of Agriculture.

#### *First Year Men.*

Fred. E. Brown .....	Streamstown, Alta.
Leonard Norris .....	Lorraine, Alta.
Chas. H. Foreman .....	Chauvin, Alta.
Peter McDermid .....	Vegreville, Alta.
Williard Olson .....	Metiskow, Alta.
Selby Thorne .....	Fort Saskatchewan, Alta.
Geo. Ronaghan .....	Islay, Alta.
Reginald Spencer .....	Islay, Alta.
L. N. Darling .....	Vermilion, Alta.
Lornie Haralson .....	Tofield, Alta.
H. L. Haralson .....	Tofield, Alta.
Philip E. Steele .....	Lougheed, Alta.
M. B. Lysing .....	Camrose, Alta.
W. Clare Curtis .....	Hardisty, Alta.
Wilson Brinton .....	Vegreville, Alta.



## DEPARTMENT OF AGRICULTURE

*First Year Men.*

Geo. Lysing	Armenia, Alta.
John S. Cross	Camrose, Alta.
Alfred Pinchbeck	Vermilion, Alta.
Harold Beck	Czar, Alta.
Dick Mead	Vermilion, Alta.
Fred H. Rhoades	Coyote Valley, Alta.
T. W. Grindley	10324—115th St., Edmonton, Alta.
L. C. Rodwell	Ranfurly, Alta.
Sidney C. Alsop	Onoway, Alta.
Claude Belfrage	North Edmonton, Alta.
Cecil Armistead	Onoway, Alta.
Herbert Cookson	Lougheed, Alta.
Andrew Cairns	Islay, Alta.
Tom Cairns	Islay, Alta.
N. J. Kinzer	Killam, Alta.
J. A. McLeod	High Prairie, Alta.
H. L. Nix	10219—115th St., Edmonton, Alta.
Henry J. Ferguson	Spirit River, Alta.
J. W. Richardson	Killam, Alta.
Henry Hawkins	Killam, Alta.
Geo. E. Hendrickson	Armenia, Alta.
Harry McCracken	Sedgewick, Alta.
Arthur McCracken	Sedgewick, Alta.
Herbert Church	Stettler, Alta.
Glen Weatherly	Stettler, Alta.
James C. Sandison	12205 Jasper W., Edmonton, Alta.
Dalmer Newton	Onoway, Alta.
William Goodall	Ryley, Alta.

*Second Year Men.*

Chas. A. Lewis	Bon Accord, Alta.
C. B. McAllister	High Prairie, Alta.
J. Keith Steele	Clark Manor, Alta.
A. S. Ward	Clairmont, Alta.
Sydney Parr	Lloydminster, Alta.
J. G. Taverner	Sedgewick, Alta.
W. C. Esdale	10173—117th St., Edmonton, Alta.
W. Tainsh	Hay Creek, Alta.
Oscar Younge	Chailey, Alta.
Clein Steinfert	Fort Saskatchewan, Alta.
Alvin Loveseth	Camrose, Alta.
John Parminter	Clover Bar, Alta.
Arthur Hunter	Innisfree, Alta.
E. C. Wallace	Coronation, Alta.

The following is a list of the names and addresses of young women registered at the Vermilion School of Agriculture in the Household Science Branch:

*First Year Women.*

M. Tilson	Landonville, Alta.
Annie Boening	Handel, Sask.
Mary Kinzer	Killam, Alta.
Katy Maggs	Vermilion, Alta.
Hjordis Moe	Killam, Alta.
Dolly Spencer	Vermilion, Alta.
Florence Dolliver	Vermilion, Alta.
Lizzie Hall	Sawridge, Alta.

*Second Year Women.*

Lola Richardson	Vegreville, Alta.
Irene Kehoe	Vermilion, Alta.
Jennie Cairns	Islay, Alta.

*Second Year Women.*

Helen Mead .....	Vermilion, Alta.
Ledra Lewis .....	Bon Accord, Alta.
Miss B. Moen .....	Tofield, Alta.
Lucille Grey .....	Tofield, Alta.
Bertha Stewart .....	Strathcona, Alta.
Jessie Goodall .....	Tofield, Alta.
Mabel Nixon .....	Saulte Ste. Marie, Ont.

## TWO YEARS INSTRUCTION.

The course in the School of Agriculture consists of two terms of five months each. The first term begins about the first of November and ends the last of March. Those students successful in passing the examinations at the end of the first year are allowed to enter the second year of the course. At the end of the second year a final examination is given. A diploma is granted to all those who pass this final examination. In addition to this all those who, in the opinion of the examining board are eligible are given entrance standing to the University of Alberta. The course in agriculture at the University covers three years and if successfully concluded commands the degree of Bachelor of Science in Agriculture. A similar arrangement is being made for the Domestic Science students.

## COURSES IN AGRICULTURE.

All the instruction in the Vermilion School of Agriculture is made to bear on the practical side of farming. The school has an excellent equipment in all departments. It is a matter of considerable satisfaction to the instructors in the various departments to realize that each year the courses in the various schools are becoming more valuable to the students, more valuable because the experience of the work in previous years is used in working out the course of study for the year in question. The useful material is retained and the less valuable parts are discarded to give place to material which is considered to be more serviceable. The course of study is as follows:

Soils and soil cultivation, judging, feeding and care of live stock, the identification and eradication of weeds, judging and grading seed grain, selection of seed grain, rotation of crops, veterinary science, carpentry, blacksmithing farm machinery, cement work, gasoline engines, road building, growing of small fruits, vegetables, trees and shrubs, killing, cutting up and curing meats, farm management and elementary courses in mathematics, bookkeeping, chemistry, physics, English, public speaking and reading. In the poultry and dairy departments useful lines of practical work have been introduced and have proven to be very popular. In poultry, crate feeding, killing and marketing of chickens was again undertaken with the first year and the care and management of a farm flock of hens for winter egg production was carried on a third time by the second year. Both of these ventures covering two years have proven interesting and highly instructive. In dairying, instruction is given in cheesemaking, milk production, milk testing, buttermaking, care of the separator, etc.

## DOMESTIC SCIENCE COURSE.

The home-makers' course is primarily one of a very practical nature. It is intended to make the girls who take it efficient home-makers. It

includes enough theory to make the practical side truly valuable. In this course, sewing, cooking, home nursing, laundering, household administration, physiology, hygiene, sanitation, foods, household bookkeeping, dairying, poultry, horticulture, physical culture and courses in elementary English, mathematics, chemistry and physics are taught.

#### STUDENT ORGANIZATIONS.

In addition to the purely academic work the students have various organizations. They are:

A.—The Student Self-Governing Organization. This organization makes the matter of discipline at the School of Agriculture of very little worry to the principal and at the same time is satisfactory and adds to the success of the Institution.

B.—Literary Society, which holds weekly meetings, is given over to a programme of debates, spelling matches or some kind of other entertainment in the Assembly Room of the School. Open debates are held once a month and it is gratifying to note the benefit derived by most of the students from the meetings, especially in the matter of being able to stand naturally and express themselves properly to an audience.

C.—The Athletic Association is active and has arranged for various kinds of exercise. There is a good open air rink at the school and we have skating and hockey games almost every day of the week, in spare hours, at noons, and also in the evenings.

D. The Y.M.C.A. has done valuable service to the students in the School. The Association meets every Thursday afternoon. A speaker is supplied for each meeting. At the end of each address the students are given opportunity for open discussion of the subject in question.

#### EXPERIMENTAL WORK.

On the twenty acres of land connected with the School numerous experiments are conducted each season. The following experiments were conducted this season:

Variety tests with cereals, fodder crops, roots, vegetables, fruits and shrubs. In addition tests with rates and dates of seeding different crops were carried on and grass mixtures are being tested.

#### EXCURSION.

On August 3 an excursion was run from Lloydminster and Edmonton to the Demonstration Farm and School of Agriculture. Over three hundred people took advantage of this opportunity to visit our School and Experimental Plots. Lunch was served to the visitors on their arrival at the School. After lunch the guests gathered in the live stock pavilion and heard addresses from the following: H. A. Craig, Deputy Minister of Agriculture, Dean E. A. Howes, Alberta University, S. G. Carlyle, Superintendent of Demonstration Farms, Alex. Galbraith, Superintendent of Fairs and Institutes, G. H. Cutler, Agronomist, Alberta University and D. W. Warner, member of the Board of Agricultural Education. At the close of the meeting the guests were shown over the farm and school

buildings and around the plots. Before their departure they were served a light lunch. The prevalent spirit with the visitors seemed to be one of satisfaction at having spent a profitable and pleasant day.

#### EXTENSION WORK.

The work of the staff connected with the Vermilion School of Agriculture is broadly speaking, divided into two parts, that of instructing during the five winter months and extension work, with the students and farmers during the remaining part of the year. This extension work embraces many phases of Agriculture. The Animal Husbandry Instructor is available to farmers for consultation on live stock problems. The Mechanics Instructor gives valuable advice and information on building plans, engines, blacksmithing and carpentry. The Science Instructor is used by the public in various ways. For instance, he is ready to assist them in soil and crop problems. The Agronomist conducts considerable extension work with the farmers and students in the district which is served by the School. He co-operates with them in testing out varieties of grain, grasses, clovers and cultural methods of one kind or another. Judges are supplied to a large number of fairs, institute meetings are addressed, good farming competitions judged and grain crops inspected for the Canadian Seed Growers' Association. Instructors are supplied to the Summer School for Teachers in Edmonton.

#### SCHOOL FAIR WORK.

Again this year as an additional part of our extension work a rural school fair was held with the object of interesting in agriculture all children of school age within a radius of thirty miles of Vermilion.

To this end thirty schools were visited early in May and a short address given setting forth the details of the plan for the School Fair and also pointing out to the pupils the advantages of holding a Fair. Each pupil was offered certain vegetable seeds, potatoes or flower seeds and a limited number of settings of eggs (5) were offered in each school district.

Miss A. M. Lavallee, Instructor in Domestic Science, accompanied the agricultural agent to all the schools and outlined the work that was to be undertaken by the girls and incidentally got acquainted with local conditions, that is, she noted the number of girls and their ages and inclinations at each school. On the strength of these observations it was decided later on that five districts were of a nature that justified forming girls' clubs. The rule in selecting districts for clubs was to have at least six girls above the age of eight and to take in girls in the teen age who lived in the district and were not enrolled at the school. After the clubs were organized all were quite active and met once a week for the purpose of receiving instruction in sewing, cooking, canning and for sewing for the Red Cross. No boys' clubs were formed this year but we have in view the formation of a number during 1918.

In the thirty schools visited there were approximately three hundred and forty-four pupils enrolled and to these were distributed the following materials:

- 194 lots of Gold Coin potatoes (5 lb. lots).
- 194 sets of flower seeds (1 pkg. each of Sweet Peas, Alyssum, Nasturtium and Candytuft).
- 277 packages of beets.

286 packages of carrots.  
 215 packages of peas.  
 221 packages of turnips.  
 121 packages of mangels.  
 163 packages of parsnips.  
 144 settings of eggs (Rhode Island Reds).

The understanding under which this material was distributed was that the seeds were to be planted at the pupil's home and the produce exhibited at the School Fair, the prize list covering, in vegetable and flower classes, only vegetables and flowers that were grown from the seeds distributed.

In organizing the work and in distributing the seeds, potatoes and eggs, each school was visited between April 29th and May 29th.

In the month of August each pupil was visited and his garden plot inspected. This necessitated travelling over 1,300 miles. The most noticeable feature of the inspection work was the discovery of the large amount of damage done by drought and cutworms to the garden plots; not only to the plots of the children, but also to the general garden of the farm. As nearly as can be estimated 75 per cent. of the gardens inspected were seriously damaged.

The School Fair was held on the Fair Grounds, Vermilion, on September 13 in conjunction with the Agricultural Society Fair. The exhibits were housed in a tent, belonging to the Department, which was pitched near the main agricultural building. The total number of exhibit entries was approximately nine hundred. Twenty schools contributed a large majority of the entries, while eight schools made no entries. The judges were supplied from the Department.

#### SEED TESTING.

Again this year the work of seed testing is heavy. To date fewer samples have come to hand than in the corresponding period a year ago, but a goodly number are coming in each day. If many more samples were to come in a special man would be required to carry on the work. The quality of the samples received so far this year is superior to what it was in those received a year ago. Nevertheless, the value of the test is fully realized and farmers are being encouraged to send in samples from all grain intended to be used as seed. The result of the germination test indicates the value of the grain for seed.

#### BLACKLEG VACCINE.

In 1917 the Vermilion School of Agriculture distributed 8,380 doses Blackleg Vaccine.

#### HONOUR ROLL.

Edward Sparrow, Sedgewick.  
 Alex. Sparrow, Sedgewick.  
 Philip Ure, Vermilion.  
 William Sheppard, S. Edmonton.  
 Floyd Shaw, Vegreville.  
 J. C. Clark, Clark Manor.

J. D. McPherson, Red Deer.  
 Wilfred Eyre, Vermilion.  
 A. G. Moore, Jarrow.  
 Herbert Spencer, Edgerton.  
 Frank Gracey, Edmonton.  
 Sydney Barnes, Blackfoot.

E. S. GRISDALE,

*Principal.*

## REPORT OF AGRICULTURAL REPRESENTATIVES

SIR.—I beg to submit the following report for the Agricultural representatives of the Department for 1917:

The Department of Agriculture resumed in 1917 the system of Agricultural Representatives which it had established in 1916. The work was conducted for six months, April to September inclusive, and was undertaken in five districts in the Province, at the three Schools of Agriculture and at Stony Plain and Sedgewick. The agents were secured from the Staffs of the Schools of Agriculture and were located as follows:

W. G. Payne	Vermilion
H. W. Scott	Sedgewick
H. H. McIntyre	Stony Plain
J. G. Taggart	Olds
J. C. Hooper	Claresholm

Mr. J. G. Taggart enlisted in June; he was succeeded by Mr. E. E. Brown.

The main line of work conducted by the Agricultural Representatives was what is ordinarily understood by the term "School Fairs." This description scarcely does full justice to the scope and character of the work but as it appears to have become fixed in the minds of the public, no effort as yet has been made to correct it.

In brief, the plan consisted in the distribution of potatoes, vegetable seed, flower seed and hatching eggs to the pupils of rural schools; the material was taken home and the potatoes, vegetable seed and flower seed planted in a systematically arranged garden; the birds were hatched and reared along with the farm flock. In the fall, a fair was held at some central point at which the pupils exhibited, in addition to the samples of products distributed, other material such as noxious weed and insect collections, sheaves of grain, threshed grain, colts, calves, drawing, penmanship, reed and raffia work and samples of cooking and sewing. Prizes were awarded to the pupils who had made the best exhibits.

School Fairs were held at nine places and included in all one hundred and sixty-six schools. The places and number of schools at each were as follows:

Vermilion	30 schools
Stony Plain	13 "
Sedgewick	19 "
Alliance	12 "
Olds	25 "
Bowden	14 "
Trochu	22 "
Derbytown	8 "
Claresholm	21 "

Total schools . . . . . 164

There were approximately 2,000 school pupils who took part in this work, who actually cared for a garden at home and made exhibitions of the products at the fair. All the fairs except Vermilion, were held separate from the Agricultural Society fairs; Vermilion was held in conjunction with the Vermilion Agricultural Society Fair. The number of exhibits in all the school fairs aggregated nearly 25,000. These figures mean nothing in themselves except to show the potential possibilities of the work; if the plan were operative in all parts of Alberta and included all the schools in the Province it would be difficult to exaggerate its effectiveness as an agency of agricultural education.

These home gardens provide excellent facility for the teaching of agriculture in the public schools. Agriculture cannot be taught as it has been customary to teach it, with the text book alone; it cannot be taught with practical objects alone and the exclusion of the text book. It can be taught best by the utilization of both text book and practical work and it is hoped and believed that the home gardens will provide this latter requisite. The course of study in the public schools in the seventh and eighth grades and in the high schools in the eleventh grade includes a rather comprehensive outline of agriculture. It is extremely difficult if not impossible to teach agriculture to immature pupils without allowing them to come in direct contact with some phases of it. They are not in the proper atmosphere. However, as it is not within the scope of this article to detail definitely what lessons might be drawn from the home garden and used in the class room, the writer will rely upon the reader, assuming from what has been said, that such could easily be effected.

This outline of the work of the agricultural representatives in connection with the school fairs, would not be complete if it did not mention the active co-operation of the Department of Education. The officials of the Department of Education in Edmonton, the school inspectors in the districts where the fairs were held, and the teachers of the schools in which the work was conducted, have all aided in a very material way to make it a success. The school inspectors have been indispensable in their advisory capacity of selecting the most suitable schools in which to commence, and in their ability to place the work before the teacher in its proper light.

Other lines of work, in addition to the school fairs, were conducted by the agricultural representatives. These lines have direct reference to assistance given to adult farmers. However, owing to the present temporary character of the work, being confined as it is to six months of the year, it has been difficult for the representatives to develop this phase of their work. The farmers have no personal acquaintance with the representative and being very busy at this season of the year have no time when assistance is required, to look up this newly appointed man. It is surprising to those unfamiliar with extension work, how reluctant many people are to engage in business transactions or discuss personal problems with men they do not know. If the representatives were located permanently at a place, they would become acquainted with more farmers and this very important line of work would be developed.

The agricultural representatives are furnished with an automobile and, when not located at the Schools of Agriculture, are provided with an office. They are able to meet farmers, therefore, both in their office and



in the field. This service develops the longer the office has been established and the better known the representatives become. Farmers are invited, without charges of any kind, to make use of this branch of the Department of Agriculture.

Addresses are delivered at Farmers' Institutes and at the meetings of the United Farmers of Alberta. Farmers are assisted in the identification of noxious and poisonous weeds and advice is given with respect to their eradication. Contagious and epidemic diseases of stock are reported promptly to the proper authorities. Assistance is given in the judging of local field crop competitions.

The training and experience of the representative equip him with a fund of information on the general farm practices of the best farmers in the district. This information, though inferior to the data of a systematically planned farm survey, is extremely valuable and enables the representative to advise other farmers as to their methods of operation.

Respectfully submitted,

E. S. HOPKINS.

## REPORT OF THE PROVINCIAL VETERINARIAN

SIR,—I have the honour to submit herewith the annual report of the Provincial Veterinarian's branch of the Department for the year 1917.

The duties of this branch consist of practical teaching, rendering assistance to the farmers and ranchers in the Province in the prevention and eradication of diseases which do not come under the Dominion Government's *Animal Contagious Diseases Act*, and the supervision of the health of the live stock kept on the seven Demonstration Farms in the Province.

### INSTRUCTION IN VETERINARY SCIENCE.

*University of Alberta.*—The course comprises a series of lectures on Veterinary Science to the second and third year students taking the course in Agriculture, these lectures being advanced work following the work completed at the agricultural schools.

*Schools of Agriculture.*—The course of lectures at the schools extends over two years, the fall and winter term being of five months' duration. The aim of this training is to furnish the students with practical informa-



HONESTY FACTS

tion concerning the care of live stock, the prevalent diseases affecting them and their treatment. Emphasis is given to those of a contagious nature, having in view the prevention of the heavy losses which occur yearly.

*Demonstration Farms.*—The health of the animals on the Demonstration Farms comes under the direct supervision of the Provincial Veterinarian. By careful management epidemics which might be expected to arise in these public institutions have been practically eliminated. The cattle herd of the farms have all been tested for tuberculosis at stated intervals.

*Institute Meetings.*—Meetings have been held in order to educate the people in the best methods of combating disease among live stock, in outlying districts where the services of qualified veterinary surgeons are difficult to obtain. When outbreaks occur we have endeavored at every opportunity to assemble the farmers in the district affected and explain the best means of eradicating the trouble.

*Demonstration Trains.*—The work of this branch done on the Demonstration Trains, we think, has been very helpful, especially the exhibit of poisonous weeds found in Alberta. Considerable interest was aroused and explanations were given to enable the farmer to recognize those weeds found in his locality. We believe this manifestation of interest will lead to greater efforts being put forward to exterminate them.

#### PREVALENT DISEASES OF LIVE STOCK IN ALBERTA.

The attention of the stockmen of Alberta is drawn to the following diseases. By computing the cases in particular diseases some idea of the prevalence of disease may be had by the owners of live stock. By becoming familiar with them they may be on their guard against possible attacks and prevent their occurrence in many cases.

(1) *Cattle—Blackleg.*—The reports forwarded to this office indicate that this disease is more general than in any preceding year. At every opportunity preventive inoculation has been advocated and with the co-operation of the three schools of agriculture a large amount of blackleg vaccine has been sold. We are recommending that with all well bred cattle it is advisable to vaccinate at the age of three to four months and re-vaccinate six months later. Cattle over six months old should be inoculated at least once a year until they reach the age of two years when they become immune except in very virulent outbreaks. In checking the spread of the disease it is very important, whenever possible, to remove the well animals from the infected field. Great care should be exercised in preventing the discharges of an animal dead or dying from blackleg from scattering over the pasture. The dead animals should not be removed. It is necessary to disinfect the ground where the animal lay at the time of death.

(2) *Contagious Abortion.*—From reports received this disease has not been so prevalent this year as during 1915 and 1916. The outbreaks which did occur were in dairy herds. This may be accounted for to a certain extent by the fact that this class of cattle are kept confined in close contact with each other throughout a part or the whole of the year so that there is a better opportunity for infection by ordinary contact. Another element which tends to confine the malady to dairy herds is the

fact that among the dairymen there is frequent interchange of cows and bulls for breeding purposes. The stockmen are alive to the dangers of the situation and we believe are combating it, with fair success.

*Control and Eradication.*—In a herd or stable where the disease exists the aborted animals should be promptly removed, the abortive fetus, after birth and bedding should be carefully removed and burned and the stalls and gutters should be thoroughly disinfected. The aborted cow should be thoroughly isolated and she should be treated daily with warm antiseptic douches. Each pregnant cow should be watched closely and if any signs of impending abortion appear she should be removed promptly to some other building and the stall thoroughly disinfected.

#### VENTILATION AND SANITATION.

The following is suggested as a means in controlling disease:

(1) The removal by thorough sweeping of dust, dirt and cobwebs from the ceiling, walls, stalls, partitions and floors.

(2) If the floor is of earth it should be removed to a depth of four inches. All earth removed should be replaced with earth from an uncontaminated source or with a new floor made of concrete.

(3) The interior of the stable, and especially the feeding troughs and drains as well as milking stools and other implements, should be saturated with a disinfectant, as Carbolic Acid, 6 oz. to every gallon of water. After this has dried the stalls, walls and ceiling may be covered with whitewash.

(4) All material from the stable and barnyard should be removed to a place not accessible to other animals. The manure should be spread on the fields and turned under, the yards should be disinfected by sprinkling liberally with a solution of Copper Sulphate, 5 oz. to a gallon of water.

(5) It is also important that arrangements be made for plenty of sunlight and fresh air and also good drainage.

*Sheep and Swine.*—The sheep and swine in the Province seem to be particularly free from disease. Such diseases as Sheep Scab, Hog Cholera and all contagious diseases of these animals come under *The Animals' Contagious Diseases Act* and are therefore handled by the Dominion Government at Ottawa. The consequence is that the only cases reported to this office are troubles which arise from mistakes in feeding (digestive derangements), and weed poisoning. From the information we have obtained we believe no single branch of agricultural industry has made as rapid advancement in the last year as the sheep and swine-producing business. The enormous increase in the value of both these industries has given a marked stimulus to a study of the causes and prevention of diseases among these animals, with the result that we are receiving very few requests for assistance.

*Horses.* (1) *Typhoid Fever.*—Throughout the year a considerable number of cases have been reported to this office and in nearly all instances they have come from outlying districts. On account of peculiar climatic conditions in the fall which caused many sloughs and watering places to dry up completely horses were forced to drink from many stagnant pools which no doubt were contaminated with bacteria of various kinds. From

a careful summary of all cases visited we believe that by better watering facilities, ventilation and sanitation of premises many outbreaks could be combated and the disease eliminated much more easily. From records kept we find that there is considerable variation as to symptoms and complications. The following are examples of these:—Cardiac debility, petechial fever, laminitis, gastro-intestinal inflammation and cerebral symptoms. We have also found that the duration of the disease may run from 6 to 10 days (average cases), to two or three weeks (severe). In one outbreak we noted that very mild cases recovered in from three to six days. The mortality varies as to season, locality and facilities for handling the patients.

(2) *Swamp Fever*.—Occasional reports come to the office regarding this trouble. Possibly some of the cases were typhoid fever as in some respects the symptoms resemble each other. We wish to state that as yet the specific cause has not been found, treatment is far from satisfactory and usually the affected animal succumbs.

(3) *Infectious Abortion*.—It is a satisfaction to be able to state that very few cases of contagious abortion in mares have been reported to this office the past year. Those interested in horse breeding should remember that the diseases are often carried from one stable to another by men. Neighbors calling upon one another and returning to their own establishments may carry the germs with them and so transmit it to their own mares. The introduction of an infected mare into a stable or herd may spread the disease, and is, we believe, a common cause of an outbreak. In districts where outbreaks are occurring it must be borne in mind that the stallion may be an important factor in the spread of abortion and owners of healthy mares should guard against the breeding to stallions which are standing in districts where abortion has been common.

#### WEED POISONING.

The subject of poisonous plants is becoming a very live issue among the stockmen of this Province. Numerous requests were received by telegram and letter to examine cases of weed poisoning and we endeavored to see as many cases as possible and thus be able to note the symptoms of poisoning and the special circumstances of each case. In some cases it was impossible to reach the locality in time to observe the early symptoms, but in the majority of cases the conditions of the poisoning were studied in the field at first hand.

It is estimated that there is more loss in live stock from this source than possibly any other, and we believe that could the stockmen become acquainted with the different poisonous plants growing in their districts, it would assist in reducing the loss to a very considerable extent. Up to the present time it has been extremely difficult for those interested in the cattle, sheep and horse industry to secure literature dealing with this subject. This can be attributed to the fact that the study of plant poisoning is only in its experimental stage and up to the present little or nothing has been known about it.

The different symptoms produced by different toxins are confusing and it is hard to come to a conclusive diagnosis. If it were possible to try out the feeding of stated quantities of the various poisonous plants at different stages of their development, carefully noting the symptoms resulting from this feeding, considerably more might be done. We find, however,

in the experiments already made that, like chemical poisons, each poisonous plant has its own peculiar action. Some affect the nervous system, others the voluntary muscles, some the brain, while perhaps the digestive apparatus is the only organ involved. One should also bear in mind in the study of plant poisoning that the months of April, May and June are really the dangerous periods and stock often seeking shelter from late snows, or long continuous rains, are apt at the cessation of these to be hungry and less particular as to the kind of forage eaten. The first green shoots of the Water Hemlock, Larkspur and Death Camas appearing in the early spring are believed to be much more poisonous than when matured and flowering. Certainly they are much more tempting and palatable while young, which no doubt accounts for the many deaths occurring during this period.

#### WHERE PLANTS ARE FOUND.

We believe that in Alberta there are a considerable number of plants with which we are unfamiliar, which at certain periods of their growth produce poisonous effects on live stock but the ones most commonly met with and producing greater loss than any others are the Water Hemlock, Larkspur and Death Camas. These plants are found more frequently in certain sections of the Province. They are more commonly met with in certain seasons of the year and there is no doubt that they produce greater loss some years than others. It would be impossible to name each individual district affected with these poisonous plants, but we find the Water Hemlock and the Larkspur more generally distributed throughout the northern part of the Province and the foot hills of the Rocky Mountains. The Death Camas, we believe, is confined almost strictly to certain localities in the south, towards the Montana boundary. Isolated cases may be found in other sections of the country farther north, but up to the present time no complaints of poisoning by this plant have been reported in Northern Alberta. In bringing out this report, the object is to present to those interested in the preservation of our live stock as much data as possible relating to this work, in the hope that by becoming proficient in recognizing the various poisonous plants, some assistance can be given in the extermination of them.

The treatment, or antidotes, in plant poisoning will be in many cases disappointing until such time as a more definite knowledge of the toxin of these plants is known. Then only can we expect to find something to counteract the toxemia produced by these poisons.

*Influence of Heavy Rainstorms.*—We have observed that during the spring months poisoning is apt to occur after heavy rains. The explanation offered for this fact is that certain plants may be more poisonous when wet with rain or dew than under other conditions. Also it is suggested that stock when feeding immediately after heavy rainstorms are more apt to pull up the roots of plants than when the range is dry. It is well known that in the case of many poisonous plants the active principle is located in the roots and that large quantities of the leaves and stems would have to be eaten in order to cause serious poisoning. It is also possible that storms accompanied by winds may beat down the weeds and grass together so that stock will not distinguish them so readily as under dry conditions. Cattle and horses often suffer from poisons after late snowstorms, and especially from the Larkspur (*Delphinium glaucum*). This plant is greedily eaten by cattle, largely perhaps for the reason that

nothing else is to be obtained without digging under the snow. Continuous rains or snowstorms also cause stock to seek shelter, from which they come forth hungry and exercise little discrimination in their choice of forage and in consequence suffer from poison. Serious cases of poisoning among sheep have occurred while the bands were being driven from one locality to another. This may be attributed to the fact that sheep cannot make the same choice of forage while being hurried over the range as they can under conditions of rest. The condition of the stomach, whether full or empty, no doubt plays an important part in the poisoning of sheep and cattle. Eating whatever is in sight as rapidly as possible, they are liable to consume large quantities of plants of kinds which when taken in small quantities are not harmful, but which in large amounts produce serious disturbances.

Following is a list of poisonous plants which are found to be most dangerous in the Province, together with a few notes in each case.

*Water Hemlock*.—This plant is widely distributed throughout Alberta. It is allied to the cultivated parsnip and resembles it to some extent. Its ordinary habitat is along the banks of streams and irrigation ditches, on wet railroad embankments and in swamps and meadows. The number of cattle poisoned by Water Hemlock is very considerable. It is to be feared mostly between the time it starts to sprout in the early spring up until the time it starts flowering, which is usually about the end of June. During that time it offers an abundance of tempting fodder to live stock and is especially dangerous in a season in which the grass is backward.

This plant, as already stated, grows in wet places and except where the grass has formed a tough sod its roots may be easily pulled up with the stem. From data gathered it would seem that the leaves and stems, including the basal portion, at least in the early stages of growth, contain sufficient poison to produce death. The roots contain a virulent poison and several cases have been reported of horses becoming poisoned from eating hay cut in meadows containing the root of the Water Hemlock.

The symptoms of this plant poisoning depend a great deal upon the quantity eaten. There is usually profuse salivation, frothing at the nose and mouth and excessive urination. There are well marked convulsions and trembling and twitching of the muscles. This is usually followed by coma until death takes place.

Up to the present time the treatment has not been satisfactory. In some cases beneficial results have been obtained from large doses of raw linseed oil, melted lard and milk.

*Loco Weed*.—For a considerable number of years a disease called "Loco" affecting cattle, horses and sheep has been widely known to the stockmen of Southern Alberta. The disease has most commonly been attributed to the action of certain plants, several species of which have been suspected of producing the "Loco" condition in animals and have been called Loco Plants or Loco Weeds, and also Crazy Weeds from the nature of the symptoms produced. Fortunately nearly all the species of plants are restricted to the foot hills of the Rocky Mountains, and especially to that locality known as the Poudre Hills. From reliable observations on the subject of Loco disease, it would seem that it is the result of eating undue quantities of certain weeds of which a number are

known. The disease may assume either an active or chronic form. In the active form, the animal lives but a few days, while in the chronic form, which is the one most commonly met with, it may live for two or more years and manifest the same symptoms in the milder degree.

Horses and sheep are the animals most frequently affected. Cattle occasionally acquire the "Loco habit" but the cases are exceptional. From a careful study of the Loco Weed we find that horses, cattle and sheep eat this plant with great readiness, particularly if they come across it at a time when grass is somewhat scarce. Several of the different species of the plant are green during the winter, when all grass on the hills is dry and brown. These plants, being quite prominent, induce an animal to try them, and because of their succulent character and agreeable taste, it may continue to eat them. During the spring months before the grass starts, where the Loco is abundant, practically all animals eat more or less of it. As the grass comes on, many leave the Loco plant and devote themselves entirely to grass, while others acquire a taste for the plant and an appetite which is not easily overcome, and they will continue to eat the Loco Weed even where there is abundance of other feed.

Some cases are noticed where both horses and cattle will eat Loco Weed for a considerable length of time and suffer no harm, while others which acquire the habit of eating the plant almost exclusively, may linger along for several months but more frequently die within a few weeks. Sheep also are poisoned in much the same way. The effect of the poisoning seems to be specially noticeable in lambs.

It is also noticed that there is considerable difference in the readiness with which various breeds of animals will eat Loco Weed. Native bred horses are very much less likely to be locoed than imported animals. Finer breeds of animals are more likely to become locoed than poorer breeds.

We have not had an opportunity of carrying out very much experimental work relating to this plant, but the results obtained from the present investigations have proved very contradictory.

*Larkspur.*—This poisonous plant has a rather wide distribution in the Province. Its preferred habitat seems to be rich and moderately moist, half-shaded localities, especially among underbrush and along streams. There is some difference in the appearance of the plant, depending on the altitude in which it is found. That found in the foothills is much smaller and the flowers a much deeper blue than those in the lower plains.

All, or nearly all, cases of poisoning from this plant in Alberta have been among cattle. In this Province the leaves of the plant become conspicuous about the last of April and the flower begins to open about the middle of June. Often late snows occur and when there is no other verdure in sight the uncovered portion of the Larkspur is in a high degree tempting to stock, all the more because it is succulent. The danger of this plant is increased by the fact that at the time of snow falls cattle seek shelter where the Larkspur is more abundant and more advanced in growth. From our experience we find it should be regarded as dangerous from May until the middle of June and it is strongly suggested that during this period cattle be kept away from the regions where the plant abounds.



Although many cattle are undoubtedly killed by eating this species of Larkspur, there are few cases reported of such poisoning. The reason of this no doubt lies in the fact that cattle, unlike sheep, being left to the care of themselves, are more frequently found dead than alive and hence we are unable to collect the symptoms cattle mainly are affected with. Sheep are rarely affected with Larkspur poisoning. Frequently bloating is the only indication of the trouble and the animal may or may not exhibit any other symptoms of the poison. When considerable quantities of the plant are eaten the animal shows stiffness in the legs and has difficulty in walking. There is spasmodic twitching of the muscles and convulsions in the final stages. As in the case of the Death Camas, referred to later, in there is reduced pulse and breathing ending in convulsions and death.

The popular treatment is bleeding at the extremities and the administration of melted lard, bacon grease or oil. In cases where bloating is the only symptom the animal should be punctured with a trocar and cannula to allow the accumulation of gas a chance to escape.

*Death Camas.*—Of all the various plants which are known to poison stock the Death Camas is probably the worst. This plant is found mostly in the southern part of the Province and where found usually grows in great abundance. Its habitat is, as a rule, in moderately moist places and it generally springs up earlier than the native grasses. It resembles grass leaves, closely though slightly thicker, and more succulent. It is generally found in coulees, on the sides of the foothills and frequently on high bench lands. As stated, it grows in great abundance in certain localities and it is therefore an easy matter for a large number of sheep to become poisoned in a short time. Why sheep are the only animals to be affected by this plant, I am unable to say, but cattle and horses seem to be immune from its effects.

The symptoms are remarkably uniform and any sheep-raiser noting the following symptoms should not fail to recognize the case of poisoning by Death Camas. The first thing noticed will probably be uneasiness and irregularity in the movements of the sheep, these indications rapidly increasing accompanied by spasms and rapid breathing until the animal passes into a state of motor paralysis with a frequent weak pulse. The duration of these stages of poisoning depends entirely upon the amount of Death Camas eaten. Where large quantities have been consumed the symptoms follow in quick succession and death results in from one to three hours.

The popular remedy for poisoning by Death Camas is bleeding in the extremities, usually at the mouth or tail, and it has been found effective in the early stages of the poison, a remedy that has come into considerable repute of recent years is the administration of equal parts of potassium and aluminum sulphate. A teaspoonful of the mixture dissolved in water is enough for about twelve sheep.

Respectfully submitted,

P. R. TALBOT,

*Provincial Veterinarian.*

## LIVE STOCK COMMISSIONER'S REPORT

The year 1917 marked the beginning of a considerable number of departures in live stock history. Briefly enumerated these are:

1. The organization of Breed Associations for the three leading beef breeds of cattle, namely, the Aberdeen Angus, Hereford and Shorthorn.
2. Government assistance to settlers in purchasing female cattle.
3. The movement of sheep by rail from the prairie districts to the Forest Reserves for summer grazing.
4. The putting on of Pig Feeding Competitions for boys and girls by the Swine Breeders' Association of Edmonton.
5. The putting on of a Baby Beef Competition at the Calgary Fat Stock Show on December 11 to 14.
6. The entrance of an Alberta herd of cattle in the Chicago International Fat Stock Show.
7. Supplying breed sows to farmers at cost.

### BREED ASSOCIATIONS.

On January 24, 1917, the breeders of Angus cattle in Alberta met in Edmonton and formed an association for the purpose of giving publicity to the merits of this breed as beef producers, and of safeguarding the interests of those engaged in the breeding of cattle of this breed. The following officers were elected:

Honorary President .....	D. A. Howes, B.S.A.
President .....	G. H. Hutton, B.S.A.
Secretary .....	N. F. Bell

#### *Directors:*

Prof. A. A. Dowell .....	University of Alberta
Lew Hutchinson .....	Duhamel
J. F. Day .....	Red Deer
F. R. Cathro .....	R.R. No. 4, Calgary
S. G. Cowan .....	Delia
L. McComb .....	Huxley
A. Noad .....	Olds

On April 10, 1917, the Hereford breeders followed the example of the breeders of Angus cattle and met in the Palliser Hotel, Calgary, and formed a breed association.

The following officers were elected:

#### *Honorary Presidents:*

His Honor Lieut. Governor Brett  
Hon. A. L. Sifton

Hon. Duncan Marshall.....Minister of Agriculture  
W. F. Stevens.....Live Stock Commissioner  
Dr. Tolmie, Live Stock Commissioner for British Columbia

#### *President:*

Simon Downie.....Carstairs

#### *Secretary:*

Thomas Bellew.....Victoria Park, Calgary

#### *Directors:*

Frank Collicutt.....Calgary  
John Wilson.....Milnerton  
P. F. Huntley.....Onion Lake  
W. F. Stevens.....Live Stock Commissioner, Edmonton  
(ex officio)

The Shorthorn breeders soon followed the example of the Angus and Hereford men, and met at the Olds School of Agriculture on November 12, 1917. The following officers were elected:

*Honorary President:*

Hon. Duncan Marshall ..... Olds

*Honorary Vice-President:*

A. E. Myer, Demonstration Farm Branch, Dept. of Agriculture, Edmonton

*President:*

Senator Talbot.....Lacombe

*First Vice-President:*

James Sharpe.....Lacombe

*Second Vice-President:*

Herbert Wright .....Blackie

*Secretary:*

Charles Beeching.....Nanton

During the year 1917 exceptional enterprise was displayed by the breeders of Hereford cattle in Alberta. The first sensation of the year was created by the purchase of "Gay Lad the 40th" by Mr. Frank Collicutt, of Crossfield, for \$11,900, and this was shortly afterwards followed by other purchases at still higher prices by Mr. Fuller, formerly of Saskatchewan but now of Calgary, and Mr. Moore, of Macleod.

A matter of equal importance was the bringing into the Province of the entire herd of the Curtice Cattle Company from the State of Kentucky to their new home on the Bow River, thirty-five miles east of Calgary. This herd contributed the champion Hereford bull to the Calgary Summer Exhibition of 1917, and this bull, along with several other animals of this herd, was entered at the Chicago International Fat Stock Show. He won third place in one of the finest classes of Herefords ever exhibited there. The Curtice Cattle Company are the first Alberta cattle breeders to compete in the Chicago International.

BULL SALES.

The usual bull sales were held during the year. A sale was held at Edmonton on April 5, under the auspices of the Alberta Provincial Cattle Breeders' Association, Limited, at which the following animals were sold at the average price indicated for each breed.

Holstein bulls sold	1	for \$	75.00	average \$	75.00
Aberdeen Angus "	3	"	795.00	"	265.00
Herefords "	15	"	2,505.00	"	167.00
Shorthorns "	81	"	15,505.00	"	191.42
	100		\$18,880.00	"	\$188.80

On April 12 and 13 a sale of bulls was held in Calgary under the auspices of the Alberta Cattle Breeders' Association. At this sale a new record price was realized for a Hereford bull bred by Mr. Frank Collicutt, which sold for \$1,500.00. The following is a statement by breeds of the animals sold at this sale:

Shorthorns	sold	267	for	\$ 66,411	average	\$248.73
Herefords	"	157	"	57,520	"	366.37
Aberdeen Angus	"	38	"	11,540	"	303.68
Galloways	"	6	"	1,105	"	184.16
Red Polled	"	1	"	245	"	245.00
		469		\$136,821		\$291.72

On May 30, 1917, a sale of bulls was held at Lacombe under the auspices of the Alberta Cattle Breeders' Association. The following is a statement by breeds of the number of animals sold and the prices realized therefor:

Shorthorns	sold	51	for	\$12.835	average	\$251.65
Herefords	"	25	"	7.390	"	295.60
Aberdeen Angus		13	"	2.950	"	226.92

#### CATTLE MARKETS.

Following is a statement of top prices for steers on the Calgary market during 1917:

January	.....	\$8.20	July	.....	\$8.62
February	.....	9.00	August	.....	8.68
March	.....	9.20	September	.....	8.00
April	.....	9.94	October	.....	9.87
May	.....	10.87	November	.....	10.00
June	.....	9.90	December	.....	9.90

The prize money in the Baby Beef Competition actually won amounted to \$1,790.00, and the entries numbered fifty-three in all, thirteen being shown by girls.

In the steer feeding class Samuel Heal, of Brandon, Manitoba, was the winner of the first prize, and the winner of the first prize in the heifer feeding class was James Frederick Metcalf, of Lacombe.

#### THE COW BILL.

The official title of the act under which assistance is granted to settlers is *The Live Stock Encouragement Act*; the familiar name is *The Cow Bill*.

The Legislature of 1917 provided for this purpose five hundred thousand dollars, which was to be loaned to associations of not less than five persons, all of whom must be engaged in practical agriculture.

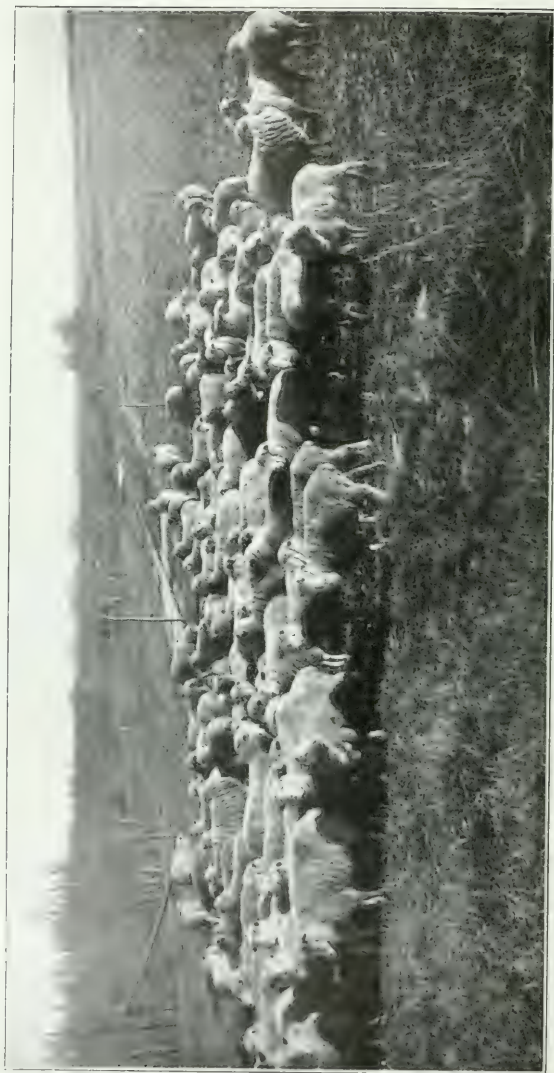
Up to and including December 31, 1917, 532 applications for loans—representing \$1,366,380.00—were received, and out of that number 220 applications—representing \$455,620.00—were guaranteed, 58 applications were rejected, and the balance were in the course of being dealt with.

That the Cow Bill has proven to be very popular is evidenced by the fact that the applications exceed by \$866,380.00 the amount they were expected to reach. Practically all of the borrowers under this act live north of Township 27. One-half of the applications were received from the districts north and east of Edmonton, while one-third of the whole were received from farmers living in the Peace River district.

The possibilities to the farmers of a loan under this act are explained by the following statement, which it must be admitted is most conservative:

Assuming that the members of an association buy three-year-old cows at an average cost of \$100.00 each; that one cow and one calf die each year; that each year's calf crop is approximately 75 per cent. of the number of cows; that the steers are sold when three years old, and that the heifers are included in the breeding herd at the same age; also allowing for a 20 per cent. decline in values by that time, the results would be:





RANGE SHEEP ARE BEING GRADED UP TO MUTTON STANDARD ON ALBERTA FARMS

## HORSES.

Although interest in the horse breeding industry did not reach the height of that manifested in cattle, the business is on a sound basis in Alberta.

Prices ruled more uniform throughout the year than usual, agricultural and draught horses selling at from \$225.00 to \$300.00 each.

An event worth noting was the large number of Alberta owned and Alberta grown horses that competed at the five western exhibitions and won first honors in many classes in competition with exhibitors from the older provinces.

An attempt was made during the year by buyers for the French government to purchase war horses in Alberta, but few were offered and the buyers withdrew. There were no other attempts at buying horses for war purposes during 1917.

## STALLIONS ENROLLED.

There were enrolled during the year 286 pure bred and 197 grade stallions. The pure breds are classified as follows:

Clydesdale .....	135
Percheron .....	114
Shire .....	9
Hackneys .....	2
Suffolk .....	3
Belgian .....	13
Thoroughbred .....	4
Standardbred .....	5
French Coach .....	1

## SHEEP.

*Movement to Forest Reserves.*

After an agitation of several years, arrangements were finally consummated whereby wool growers of the prairie districts were able to avail themselves of the valuable pasturage annually going to waste in the Forest Reserves tributary to the Crow's Nest Pass.

A reduction of 25 per cent. off the regular tariff on outgoing shipments was given by the Canadian Pacific Railway Company, and so satisfactory was the service rendered that of the 35,000 head handled there was a mortality of only one animal, and that an aged one. In no instance did any lamb fail to find its mother within two hours after being unloaded.

The year's operations showed that for the production of lambs the pasturage in the Forest Reserves is far superior to the short grass of the southern prairies, but for the finishing of wethers and the fattening of dry ewes the prairie pastures are to be preferred where sufficient pasturage can be obtained.

## SALES OF RAMS AND BREEDING EWES.

An auction sale of sheep was held in Edmonton at the Exhibition Grounds on Friday, November 2, under the auspices of the Alberta Provincial Sheep Breeders' Association, Limited, where the following sales were made:

Breed	Number	Sex	Average Price
Shropshires	13	Males	\$53.67
"	6	Females	25.66
Oxfords	16	Males	64.70
"	21	Females	53.00
Hampshires	3	Females	31.66
Grade	25	Females	17.84

On October 31 and auction sale of sheep was held in Calgary under the auspices of the Alberta Sheep Breeders' Association, Limited, at which the following animals were sold at the prices indicated:

Breed	Number	Sex	Average Price
Shropshires	68	Males	\$31.60
"	1	Females	26.00
Oxfords	32	Males	54.37
"	4	Females	17.62
Suffolks	10	Males	72.00
"	2	Females	45.00
Grade	6	Females	17.58
" Oxfords	20	Females	18.56

#### WOOL SALES.

Wool prices ruled higher than anything previously known in this Province. Wool marketing associations were formed at Vegreville, Edmonton, Lacombe, Calgary and Lethbridge.

Following is a statement of the wool sale held under the auspices of the Alberta Provincial Sheep Breeders' Association, Limited, at Edmonton, on August 7:

Total amount sold	64,000 pounds
Average price realized	59½ cents
The largest contributor thereto was	
George Smith & Sons, of Irma,	
who contributed	5,234 pounds

Two lots were received from British Columbia and three from the Peace River district.

Prices ranged as follows:

Fine medium combing (firsts)	65c	per lb.
" " "	63½c	"
" " (washed)	65c	"
" clothing (firsts)	59c	"

The lower grades ranged from 42c to 56c per lb., while tags and locks brought 20c per lb.

At the wool sale held in Calgary, under the auspices of the Alberta Sheep Breeders' Association, Ltd.:

Total amount sold was	151,453 lbs.
Average price realized	60c per lb.

At the wool sale held at Lacombe 44,000 lbs. were sold by the Wool Marketing Association at that place.

At Vermilion 37,000 lbs. were sold by the Association.

At Pincher Creek 62,000 lbs. were sold by the Association.



The prices realized were practically the same in all cases.

The members of the Southern Alberta Wool Growers' Association marketed the bulk of their output through the Government warehouse at Toronto. The amount thus consigned was 800,000 pounds.

#### MUTTON PRICES, 1917.

The quotations for sheep and lambs issued by the commission firms at the Alberta Stock Yards, Calgary, were as follows:

Average price per cwt.

	Mutton	Lamb
January .....	\$10.75	\$11.87½
February .....	10.75	11.75
March .....	10.75	13.10
April .....	10.75	13.50
May .....	10.75	13.50
June .....	10.65	13.40
July .....	11.12½	12.87½
August .....	11.50	12.50
September .....	11.70	12.60
October .....	12.62½	13.00
November .....	13.00	13.00
December .....	13.00	13.00

#### SWINE.

Interest in swine-growing continued to show a considerable decline until almost the close of the year. There were heavy losses in young pigs during the months of March and April, and this combined with the high prices of wheat tended to reduce interest in this class of live stock production. Interest was further impaired because of the short crop of coarse grass due to the drought in the early part of the season. So serious had the shortage in this line of production become that the Food Controller of the Dominion of Canada and the Minister of Agriculture called a conference at Ottawa of delegates from the four western provinces to discuss the situation and to devise means that might be adopted for the purpose of renewing interest in the swine business. The following representatives from Alberta were present at this gathering:

Mr. H. A. Craig, Deputy Minister of Agriculture.

Mr. W. F. Stevens, Live Stock Commissioner.

There were also present:

Mr. W. H. Fairfield, Superintendent Experimental Farm at Lethbridge.

Mr. G. H. Hutton, Superintendent Experimental Farm at Lacombe representing the interests of the Dominion Government in Alberta.

Mr. P. P. Woodbridge, Secretary, United Farmers of Alberta.

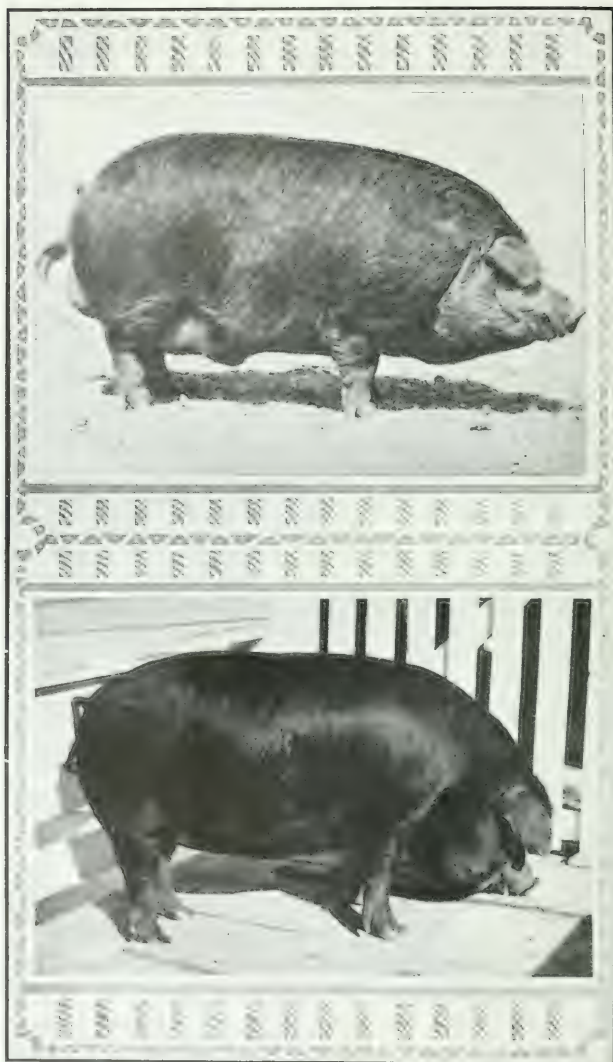
Mr. P. Baker, Vice-President, United Farmers of Alberta.

Mr. E. L. Richardson, representing Alberta Swine Breeders' Association, Calgary.

Mr. W. J. Stark, representing Alberta Swine Breeders' Association, Edmonton.

The particular matters discussed at this conference were the fixing of a price for live hogs, the securing of an adequate supply of coarse grains for hog feeding, and also the securing of farm labor to carry on farm operations in a manner sufficiently extensive to meet the food requirements of the country.

The western delegates were unanimous in their demand that a price for hogs should be decided upon, but upon receipt of information to the



REPRESENTATIVES OF THE THICK TYPE

effect that no price was being fixed in the United States, and that in the opinion of the Food Controller it was not practicable to fix a price, the delegates agreed to waive the matter and to do their utmost to interest the farmers in their respective provinces in this question.

Upon the return to Alberta of the representatives of this Province, steps were taken to hold meetings to promote greater swine production. These meetings were much more successful than at first expected. The representatives of the Government were assisted in this work by Mr. H. W. Wood, President of the United Farmers of Alberta. Up to the close of 1917 meetings had been held at Wetaskiwin, Ponoka, Alix, Red Deer and Calgary.

In addition to the campaign on behalf of greater hog production, steps were taken to supply brood sows to farmers at cost, and the following is a summary of the work done in this connection up to December 31, 1917.

Number of sows bought	178
" " " sold to plants for various reasons	2
" " " " farmers	10
" " " that died	1
" " " on hand	173
" " boars bought	8
	186 186

The matter of supplying brood sows to farmers at cost was not decided upon until late in November. The original plan was to procure, breed and sell six hundred head. It was decided to buy these on the markets of Calgary and Edmonton at the prices ruling from day to day, and to sell them at the prices ruling on the day of sale, with an additional charge of \$1.00 for service fee. Later on, so discouraging were the reports that came to hand regarding the response that the swine-growers were likely to make to the appeal for greater bacon production, that it was decided to limit the number of sows to be distributed to one-half of that originally determined upon.

#### SWINE SALES.

On November 2 an auction sale of pure bred swine was held at Edmonton under the auspices of the Alberta Provincial Swine-breeders' Association, Limited, at which the following sales were made:

Breed	Number	Sex	Average Price
Berkshires	8	Males	\$47.38
"	6	Females	47.83
Duroc-Jerseys	3	Males	33.33
"	3	Females	39.33
Yorkshires	1	Female	50.00

On October 30 an auction sale of pure bred swine was held in Calgary under the auspices of the Alberta Provincial Swine-breeders' Association, Limited, at which the following sales were made:

Breed	Number	Sex	Average Price
Berkshires	13	Males	\$41.77
"	17	Females	44.41
Duroc-Jerseys	9	Males	30.33
"	8	Females	22.00
Poland China	1	Male	30.00

## HOG MARKET QUOTATIONS, 1917.

The average top prices for hogs on the Calgary market for 1917 were as follows:

January	\$12.48 <sup>3</sup> / <sub>4</sub>
February	13.51 <sup>1</sup> / <sub>4</sub>
March	14.68
April	15.14
May	15.72 <sup>1</sup> / <sub>2</sub>
June	14.57
July	14.94
August	16.94
September	16.90
October	17.27 <sup>1</sup> / <sub>2</sub>
November	16.17 <sup>1</sup> / <sub>2</sub>
December	16.99

## BOYS' AND GIRLS' PIG FEEDING COMPETITION.

The Pig Feeding Competition, put on in connection with the Swine Sale at Edmonton, was, in view of its being the first of its kind in Alberta, very successful. Eight competitors personally exhibited their pigs, and two of these—Constance and Leslie Ball, of Loughheed, came over one hundred miles to show their animals. The first prize was won by Robert Ball, of West Salisbury, sixteen years of age; the second, by Verna Bacon, of Edmonton, a girl eleven years of age; the third, by Leslie Ball, aged ten, of Loughheed; the fourth, by Constance Ball, aged twelve, of Loughheed; the fifth by Roy Bacon, aged fourteen, of North Edmonton; the sixth by John H. Pearse, aged fifteen, of Edmonton; the seventh, by Oliver Bell, aged eleven, of Horse Hills; the eighth, by George Jackson, aged fifteen, of Leduc.

## REPORT OF THE DAIRY COMMISSIONER

SIR,—I have the honour to submit herewith the report of the Dairy Commissioner's Branch for the year ending December 31, 1917, under the following heads:

- I.—General.
- II.—Creameries and Cheese Factories.
- III.—Marketing of Creamery Butter and Eggs.
- IV.—Grading of Cream and Creamery Butter.
- V.—Educational Butter-scoring Contest.
- VI.—Dairy Instruction Work.
- VII.—Acknowledgments.

### I. GENERAL.

The great increase in the number of milch cows is a striking indication of the growth of the dairy business of Alberta. The following figures, bearing upon that point, are quoted from the reports of the Census and Statistics Office of the Department of Trade and Commerce, Ottawa:

Year	Milch cows	Value of cows
1914 .....	179,068	
1915 .....	183,974	
1916 .....	277,324	\$21,354,000
1917 .....	325,861	29,083,000

This means an increase of 82 per cent. in three years.

Although no special direct appeal has been made to the dairymen of Alberta for an increased production of dairy products we may assume from the figures just quoted that in weighing the relative values, present and prospective, of the different departments of his business the dairyman has reached the conclusion that dairying must remain a permanent feature in his general scheme of operations.

He knows that the great consuming public is beginning to learn and appreciate the value, as well as the price, of high grade dairy products.

Conservatively estimated, the year's milk production of the Alberta cow represented a value of \$25,000,000.

### THE PRODUCTION OF CREAMERY BUTTER.

It was feared in many quarters at the beginning of the season that the dairy industry would receive a severe setback on account of the backward spring, the comparatively high prices of grain and cattle feeds, and the scarcity and cost of competent labor for the dairy farm. As the volume of the creamery butter production is perhaps the most accurate indicator we have of the dairy development from year to year, it now seems that these fears were not warranted, though the yearly increase was somewhat smaller than usual.



THE MILK COW AND THE SILO ON THE STONY PLAIN DEMONSTRATION FARM.

For 1917 the total output of creamery butter was reported as being 8,943,978 pounds. Compared with the 8,521,784 pounds for 1916 it shows an increase of 5 per cent. Practically 62 per cent. of the butter was manufactured north of Red Deer and 38 per cent. south of that point, as against 56.5 per cent. and 43.5 per cent. respectively in 1916.

In the matter of selling price, the year's production is reported as having been sold at an average price of 38.18 cents per pound, as compared with 30.73 cents per pound for 1916 at the creameries. This is an increase of 24 per cent.

Alberta's creamery butter continues to hold its high standing in the markets in which it is sold and I deem it a privilege to highly commend the enterprise and progressive spirit of the majority of our creamery operators for the good work they are doing in maintaining the quality standards of their product.

Market conditions during the past year were at times such as to tolerate (in terms of prices) a slight lowering of the quality standards. In spite of this condition and with praiseworthy loyalty to the best interests of the dairy business the creamery operators and, through their agency, the producers on the farm kept their standards high.

#### CANADA'S NORTHERNMOST CREAMERY.

The Edmonton City Dairy, Ltd., opened a branch creamery at Grande Prairie, 55 degrees 10 feet North Latitude. As this is one of the northernmost creameries in the world we show a photograph of it. In appearance it does not convey the impression that it is a pioneering venture. The operators are to be commended upon their enterprise in bringing this useful institution into that part of the North Country, and the pioneer settlers there are to be congratulated upon having access to its services.

#### FACTORY CHEESE PRODUCTION.

Once more we are able to record a very substantial increase in our production of cheese. The twenty factories that were operated during the year reported a cheese output of 1,277,710 pounds and a selling price of 22.21 cents per pound at the factories. Compared with these figures we had in 1916 sixteen factories operating, a total production of 745,122 pounds of cheese and a selling price of 20.73 cents per pound at the factories. This means an increase of 71 per cent. in the production and 7 per cent. in the selling price.

The general increase that had taken place in the selling price of cheese made it possible for the operators of the factories to pay the producers practically "city prices" for their milk and in that way handle all that was offered in the districts where milk is produced to a large extent for direct sale.

In order that profitable markets may be secured and held for the surplus cheese production of the Province it will soon be necessary that the product be standardized as to quality. This point has been brought to the attention of this branch on several occasions recently by the larger dealers who have handled Alberta cheese.

When the men who are engaged in the produce trade call for such action the factory operators will undoubtedly be glad to co-operate with them and with the Department in bringing about a practicable system of standardization and grade basis transactions.

#### PASTEURIZATION OF CREAM FOR BUTTERMAKING.

This subject was discussed at some length in my report for 1916. The benefit of high temperature pasteurization has been amply demonstrated in the "keeping quality" of the butter made from cream so treated. The following table shows the quantity of pasteurized cream butter graded at the Department's grading stations at Calgary and Edmonton during the summer seasons of 1916 and 1917, also the quantity and proportion of butter made from cream heated to the temperatures shown, prior to the holding period which ranged from 10 to 30 minutes.

Temp. 0 Fahr.	S. S. 1916 22 Creameries		S. S. 1917 32 Creameries	
	Pounds	%	Pounds	%
140—155°	185,969	5.2	14,948	.4
160—169°	2,490,032	70.4	1,539,562	35.9
170—179°	798,322	22.5	2,643,911	61.9
180—190°	68,334	1.9	76,924	1.8
Totals .....	3,542,657	100.0	4,275,345	100.0

It was decided at the beginning of the season that the Department's grade certificates would be issued *only* on butter which had been made from effectively pasteurized cream. Experience had shown conclusively that butter made from raw or ineffectively pasteurized cream lacked stability in keeping quality, and to that extent would operate prejudicially to the general scheme of the standardization of our creamery butter, its reputation in the market and the standing of our grade certificates with the trade.

In order, however, to assist the creameries that were not able or disposed just yet to pasteurize their cream, in the marketing of their butter on a quality basis, the Department undertook for a time to grade and to issue on such butter negotiable score cards of a special form. This plan was fully explained to the trade as well as to the creamery operators concerned.

#### ALBERTA BUTTER AND CHEESE AT LARGE CANADIAN EXHIBITIONS.

I am again pleased to record the success which has attended Alberta exhibitors of creamery butter during the past year at the following large Canadian Agricultural and Industrial Exhibitions:—Calgary, Edmonton, Brandon, Regina, Vancouver, Toronto, London and Ottawa. Of the 569 creamery butter exhibits entered at these eight exhibitions 244, or 43 per cent, came from Alberta. Of the 148 prizes offered 96, or 65 per cent, were awarded to exhibits from Alberta. Of the 23 First Prizes offered 18, or 78 per cent, came to Alberta. One exhibitor, the Carlyle Dairy Co., of Calgary, deserves special mention for having been awarded from one to three prizes at each of these keenly contested exhibitions. Mr. Alex. Storrar was the butter maker who established this record.

It is but fair to say that several other creameries and butter makers made very creditable records as well.



The utility and great importance of these inter-provincial or, rather, national contests is not so much in the distribution of a certain number of prizes and trophies as in the impulse which they give towards the establishment of higher and more uniform quality standards throughout Canada.

Of recent years the management of the large exhibitions of Canada have been vying with each other to encourage and attract exhibits from other Provinces and in that way to assist in this important line of educational work.

## II. CREAMERIES AND CHEESE FACTORIES.

There were 20 cheese factories and 66 creameries in operation in the Province during the year 1917. Particulars as to location, etc., of these are given in the following list:

### CHEESE FACTORIES AND CREAMERIES OPERATING IN ALBERTA, 1917.

<i>Name of Factory</i>	<i>Proprietor or Manager.</i>	<i>P.O. Address</i>
------------------------	-----------------------------------	---------------------

#### *Cheese Factories.*

Glen Park Cheese Factory .....	Wieting & Son .....	Buford
Mountain View Cheese Factory ...	J. S. Parker .....	Cardston
Star Co-Operative Cheese Ass'n. ..	Cyrille Cloutier .....	Pickardville
Raven Cheese Factory .....	D. Morkeberg .....	Markerville
Kuusamo Cheese Factory .....	T. B. Millar .....	R. R. No. 1 Red Deer
Winterburn Cheese Factory .....	George Bevington ...	Winterburn
Rossington Cheese Factory .....	Jas. I. Watt .....	Rossington

#### *Combined Creameries and Cheese Factories.*

Calgary Central Creamery .....	P. Pallesen .....	Calgary
Olds Central Creamery .....	" .....	"
Campbell & Griffin Creamery ....	Campbell & Griffin, Ltd. ....	"
Clover Hill Creamery .....	R. LeBlanc .....	Didsbury
Carlyle Dairy Company .....	A. R. Kendrick .....	"
Woodland Dairy, Ltd. ....	E. T. Love .....	Edmonton
Edmonton City Dairy .....	Edmonton City Dairy Limited .....	"
Wild Rose Creamery .....	" .....	Ponoka
Wetaskiwin Creamery .....	" .....	Wetaskiwin
Ferrybank Cheese Factory .....	B. T. Wheeler .....	Ferrybank
Olds Butter & Cheese Factory ....	W. A. Brodie .....	Olds
Hepworth & Trimble .....	H. W. Trimble .....	Red Deer
White Swan Creamery .....	" .....	Bowden

#### *Creameries.*

Meadow Creamery Co., Ltd., .....	N. A. Larsen .....	Alix
Ashmont Creamery .....	Geo. E. Scott .....	Ashmont
Bentley Creamery .....	Kenneth Kerr .....	Bentley
Carlyle Dairy .....	Carlyle Dairy Co. ....	Calgary
Hays' Dairy .....	Hays & Co., Ltd. ....	"
Hudson's Bay Co. (Produce Dept.) ..	A. J. Howe, Mgr. ....	"
Co-operative Dairy .....	Drake & Derby .....	"
Camrose Central Creamery .....	P. Pallesen .....	"
Mayton Creamery .....	" .....	"
Cardston Creamery Association ..	S. Lowe, Secretary ...	Cardston
Carmangay Creamery .....	C. H. Messinger .....	Carmangay

<i>Name of Factory</i>	<i>Proprietor or Manager.</i>	<i>P.O. Address</i>
Claresholm Creamery Association	Carl J. Braren, Sec'y	Claresholm
Golden Rod Creamery	J. F. Millar	Clive
Cochrane Creamery Association	J. W. Loughery	Cochrane
Coronation Creamery	A. E. Kofoed	Coronation
Elkton Creamery	H. H. Reimer	Didsbury, R. R.
		No. 1
Delburne Creamery	Edmonton City Dairy, Limited	Delburne
Daysland Creamery	"	Daysland
Ferintosh Creamery	"	Ferintosh
Grande Prairie Creamery	"	Grande Prairie
Riviere Qui Barre Creamery	"	Riviere Qui Barre
Stettler Creamery	"	Stettler
Vermilion Creamery	"	Vermilion
Vegreville Creamery	"	Vegreville
Eckville Central Creamery	R. H. Woods	Eckville
Enterprise Dairy, Ltd.	D. F. Towne	Edmonton
Swift-Canadian Co., Ltd.		
(Creamery Dept.)	C. H. Townsend	"
Northern Creameries, Ltd.	A. P. Baker	"
High River Creamery Association	J. S. Jones, Sec'y	High River
Hanna Creamery	L. W. Kofoed	Hanna
Lacombe Creamery	A. Urquhart & Co., Ltd.	Lacombe
Crystal Dairy, Ltd.	D. P. Carlyle	Lethbridge
Southern Alberta Creamery Co., Ltd.	Alfred Slater	Macleod
Magrath Creamery Association	J. A. Harker, Sec'y	Magrath
Innisfail Creamery	D. Morkeberg	Markerville
Markerville Creamery		
Elnora Creamery		
Red Deer Creamery		
Carlyle Creamery	Carlyle Creamery Co., Ltd.	Medicine Hat
O. K. Creamery	W. H. Johnson, Sec'y	Morningside
The Water Lily Co-operative Creamery, Limited	C. D. Elgey, Sec'y	Mound
Pincher Creek Creamery	H. McIntosh	Pincher Creek
Pine Lake Creamery	Hepworth & Trimble	Red Deer
Quarrel Creamery	J. A. Brown	Quarrel
Red Lodge Creamery	Colin Thomson	Red Lodge
Blindman Valley Creamery	John Kerr	Rimbey
Beaver Lake Farmers' Creamery Association	A. Finseth	Ryley
C.P.R. Demonstration Farm	S. M. Walker	Strathmore
Knee Hill Creamery	Nelson & Barron	Sunnyslope
Stonelaw Creamery	R. Barron	Stonelaw
Spring Lake Creamery	A. M. Kerr	Spring Lake
Viking Co-operative Creamery Association	Wm. McAthey, Sec'y	Viking
Meadow Creamery Co., Ltd.	H. Lauridsen-Hoegh	Wainwright

New cheese factories were established at Rossington, Olds (P. Pallesen), Didsbury (The Carlyle Dairy Co.), Calgary (Campbell & Griffin, Ltd.), and Bowden. The cheese factory which had been operated at Eckville for several seasons did not re-open.

With regard to creameries. Eleven new ones were started during the year at the following points:—Ashmont, Calgary (The Hudson's Bay Co.), Didsbury (Carlyle Dairy Co.), Delburne, Eckville, Edmonton (The Swift Canadian Co., Ltd. and The Northern Creameries, Ltd.), Grande Prairie, Mound, Olds (P. Pallesen) and Wainwright.

The opinion was expressed in my Annual Report for 1916 that several "dormant" creamery plants would, no doubt, be opened for business in the near future. This has been done during the past year in the case of Spring Lake and Rimbey. On the other hand, a few creamery plants did not re-open owing to purely local conditions. The business of the Royal Dairy, Medicine Hat, was sold to a local operator, and the creameries at Gleichen, Nanton and St. Paul de Metis did not have sufficient business in sight to warrant operations.

### III. MARKETING OF CREAMERY BUTTER AND EGGS.

The Butter Marketing Service was continued during the year and butter was received from ten creameries for marketing. The following Tables I. and II. indicate the volume of business handled for each creamery giving quantity, total revenue and average selling price at Calgary for the Winter Season 1916-17 and for the Summer Season, 1917, respectively.

TABLE I.

#### SUMMARY OF BUTTER SALES—WINTER SEASON, 1916-17.

Creamery or Shipper	Pounds of Butter Sold	Selling Price at Calgary	Average Price per Pound Cents
D. Morkeberg, Elnora .....	23,072	\$9,358.37	40.56
" Innisfail .....	13,384	5,474.13	40.9
" Markerville .....	27,776	11,285.33	40.63
" Red Deer .....	4,477	1,811.15	40.45
J. A. Brown, Quarrel .....	667	264.56	39.66
Cardston Creamery Association ....	43,810	17,766.05	40.55
Viking Co-operative Creamery As- sociation .....	1,904	781.20	41.03
P. Pallesen, Calgary .....	9,452	3,704.97	39.2
Totals and Average .....	124,542	\$50,445.76	40.505

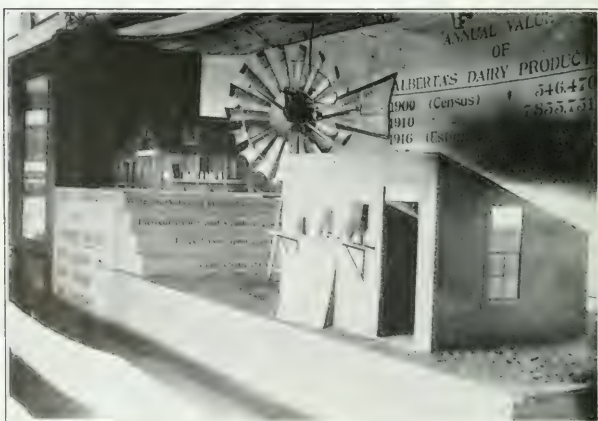
TABLE II.

#### SUMMARY OF BUTTER SALES—SUMMER SEASON, 1917.

Shipper	Pounds of Butter Sold	Selling Price at Calgary	Average Price per Pound Cents
The Dan Morkeberg Creamery Co., Ltd., Elnora .....	52,600	\$21,084.01	40.08
The Dan Morkeberg Creamery Co., Ltd., Innisfail .....	74,546	29,694.10	39.83
The Dan Morkeberg Creamery Co., Ltd., Markerville .....	93,414	37,542.42	40.19
The Dan Morkeberg Creamery Co., Ltd., Red Deer .....	45,384	18,125.28	39.94
The Cardston Creamery Association, Cardston .....	101,159	39,863.61	39.47
The Viking Co-operative Creamery As- sociation, Viking .....	88,445	35,551.50	40.2
Hays & Co., Ltd., Calgary .....	26,553	9,842.59	37.07
P. Pallesen, Calgary .....	120,316	46,895.67	38.98
The Beaver Lake Farmers' Creamery Association, Ryley .....	12,040	4,478.04	37.19
Totals and Average .....	614,457	\$243,077.22	39.56



CREAMERY AT GRANDE PRAIRIE, ALBERTA



DAIRY EXHIBIT ON DEMONSTRATION TRAIN

It will probably be of interest to add here that in our marketing operations during the past season the "spread" in the prices realized for the different grades of butter handled was smaller than during any previous year since the marketing on a grade basis was established. For instance, *Specials* realized an average price of 39.67 cents per pound at Calgary as against 39.14 cents per pound for *Firsts*. The classifications of the butter handled through the Department's marketing service during the summer season was:—*Specials* 82.92, *Firsts* 16.49 and *Seconds* .59 per cent. respectively. So the probability is that if the proportion of butter grading under *Specials* had been larger the spread in prices would have been more marked.

A small quantity of eggs—160 cases—were handled by the Department's marketing service through the dairy branch during the season of 1917. The eggs were sold for \$1,578.20. The expenses in connection with inward freight, candling and terminal service amounted to 3.05 cents per dozen eggs handled and was deducted from the selling price in the returns made to the shippers.

#### IV. GRADING OF CREAM.

While over 95 per cent. of the cream supplies to creameries in Alberta has been bought from the farmers on grade, during the past couple of years, each creamery operator defined his own grade standards and grade descriptions. The standards may have been fairly uniform but the descriptions have been too numerous for satisfactory business, and analysis of the returns received from creameries for the year 1916 revealed no less than fourteen different grade descriptions where less than half of that number would have answered the purpose much better. It is reasonable to suppose that the use of such a variety of grade descriptions must have been confusing to many patrons, especially of creameries operating in competitive territory. An effort was made, therefore, at the beginning of the season 1917 to get the creameries to adopt uniform grade descriptions in the buying of cream on grade, and in the following circular letter sent out it was recommended that these grade descriptions be made to correspond with those used for the standard grades of creamery butter, namely, *Specials*, *First*, *Seconds*, and *Off Grades*.

"The general adoption of uniform grade standards and grade descriptions for cream was discussed at the Provincial Dairy Convention and it was pointed out that a multiplicity of grade descriptions were necessarily confusing to the patrons of the creameries and led to a good deal of misunderstanding all along the line. It was recommended that the following classification and grade descriptions be adopted for the ensuing season:

Table Cream.  
Specials.  
First (or No. 1).  
Seconds (or No. 2) and  
Off Grade.

"According to this classification the term 'Table Cream' could be supplemented by such explanatory terms as 'inspected dairies only,' 'city sweet' or 'extra special' by the creameries who cater to the milk and

cream trade in towns or cities. The other grade descriptions, viz:—‘Specials,’ etc., would be used to cover cream for buttermaking purposes and correspond with the grade standards for creamery butter.

“The large city dairies, and the manufacturers of 95 per cent. of the creamery butter production of the Province, were represented at the Convention and appeared to be in full accord with the principle of the foregoing recommendation.

“The creamery operators of Alberta have shown a commendable attitude, and wholehearted co-operation, towards the standardization of the butter. It is now hoped that they will show the same attitude and co-operation in the adoption of Uniform Grade Standards and grade descriptions for cream, as specified in the foregoing.”

#### THE GRADING OF CREAMERY BUTTER.

It is gratifying to report that good progress is being made in the grading and standardization of Alberta's creamery butter. During the past year 37 creamery operators availed themselves of the Department's Grading or Marketing Services, as compared with 35 for the previous year. These 37 creameries manufactured 86 per cent. of the creamery butter of Alberta.

Although the creameries that manufactured the remaining 14 per cent. of the butter did not use the Department's services they practically all sold their butter upon a grade basis to local buyers, and upon the latter's own grades. It has been claimed time and again that the dealers were at times more generous in their grading than was the Department, especially in the matter of butter made from raw or ineffectively pasteurized cream. The dealers who buy butter from creameries subject to their own grading can, and possibly do, allow a certain amount of flexibility in their grade standards when their individual market conditions so warrant, but for obvious reasons the uniformity of the Department's grading and the requirement of effective pasteurization of the cream must be maintained, irrespective of market conditions.

When a grade certificate is issued on a given lot of butter, the Department's graders have no means of knowing when or where the butter covered by that certificate is to be marketed. They do not know whether the butter which any given grading sample represents, will go into immediate trade and consumption or whether it will be placed in cold storage by the buyer to be brought out and sold during the season of short production several months hence.

During the six summer months 7,016 churnings of butter were graded at the Department's grading stations at Edmonton and Calgary. The packages which were graded represented a total quantity of 4,644,646 pounds of butter or practically 10 per cent. more than the quantity graded during the corresponding period of 1916. The following figures show the relative classification of the butter graded during the two seasons. The classification for 1915 is shown in brackets—for further comparison.

Season	Specials, per cent.	Firsts, per cent.	Seconds, per cent.	Off Grade per cent.
(1915)	(33.0)	(39.7)	(24.3)	(3.0)
1916	43.9	41.7	12.9	1.5
1917	56.3	36.3	6.7	.7

It has been customary in recent years to record in this report the name of the creamery that has shown the greatest individual improvement in the quality of its butter handled through the grading stations, as compared with that of the previous year. The place of honor belongs this time to the Woodland Dairy, of Edmonton. The following figures tell the story:

Season	Specials, per cent.	Firsts, per cent.	Seconds, per cent.	Off Grade, per cent.
1916	18.4	38.3	35.8	7.5
1917	60.2	27.6	11.1	1.1

This is a record of which the management may well be proud.

As in former years, the grading of butter has been very satisfactorily done by Messrs. H. S. Pearson and J. R. Flan as chief graders at Edmonton and Calgary, respectively. They have been assisted at times by Mr. Geo. W. Scott and Mr. W. J. Beckett. The painstaking and conscientious manner in which this important work has been done by these men is to a large extent responsible for the uniform success which has been achieved.

#### V. EDUCATIONAL BUTTER-SCORING CONTEST.

Thirty-five creameries, referred to in the foregoing section, participated in the Season's Butter Scoring Contest which has been carried on by the Department since 1907. The winning creameries and buttermakers, scores and awards, for the season 1917 were as follows:

Creamery	Buttermaker	Average Score Points	Award
Innisfail .....	W. Hanson .....	96.31	Trophy & Gold Medal
Markerville .....	H. Hanson .....	96.17	Silver Medal
Calgary Central Cream- ery .....	O. Seversen .....	95.91	" "
Viking Creamery .....	J. J. Skalitzky .....	95.86	" "
Campbell & Griffin, Ltd., Calgary .....	C. E. Whitehill .....	95.81	" "
Edmonton City Dairy, Ltd., Edmonton .....	C. E. Christensen .....	95.76	" "
Elmira .....	A. A. Munro .....	95.65	" "
E. C. D., Wetaskiwin .....	R. W. Farmer .....	95.58	" "
Cardston .....	Thos. Pickering .....	95.52	" "
Red Deer .....	Geo. Nielsen .....	95.52	" "
Woodland Dairy, Ltd., Edmonton .....	F. S. Wilson .....	95.26	" "
Hays & Co., Ltd., Cal- gary .....	I. Kesnick .....	95.18	" "
Swift-Canadian Co., Ltd., Edmonton .....	J. van Dam .....	95.14	" "
Camrose Central Creamery .....	Carl Anderson .....	95.05	" "
Hepworth & Trimble, Red Deer .....	H. W. Trimble .....	94.48	" "

## VI. DAIRY INSTRUCTION.

As in former years, a certain amount of instruction work has been carried out by this branch of your Department in the form of short courses, special dairy meetings and through lectures and laboratory work at the Schools of Agriculture. One of our dairy instructors accompanied the Mixed Farming Special Train in charge of the dairy exhibit. The illustration shows a section of the exhibit.

## VII. ACKNOWLEDGMENTS.

I desire again to acknowledge the generous co-operation of the Wholesale Produce Trade and the creamery operators in our work of standardizing and improving the quality of the creamery butter of the Province. In view of the market conditions which obtained last year this co-operation was particularly appreciated.

Respectfully submitted,

C. MARKER,  
*Dairy Commissioner.*



## **REPORT OF THE SUPERINTENDENT OF FAIRS AND INSTITUTES**

SIR,--I have the honour to submit a report of the Superintendent of Fairs and Institutes for the year 1917.

### **EXHIBITIONS AND FAIRS.**

The fair season of 1917 was favored with splendid weather throughout. Only two fairs had to be postponed on account of rain, viz:—Olds and Lomond, and these two were held subsequently in fine weather. Out of the one hundred and three fairs and exhibitions that had been arranged for, ninety-four were held, the remaining nine fairs being for various reasons abandoned. The attendance generally was fairly good. At the Calgary and Edmonton Exhibitions the exhibits, the attendance, and the interest manifested were all that could be desired. Red Deer, Medicine Hat, Camrose, Lacombe, Vermilion, Lloydminster and one or two other places had also excellent fairs, the number of entries and the general interest shown in the various live stock and domestic exhibits being particularly gratifying. Most of the smaller fairs were not quite as good as usual. Both entries and attendance were light, the main reason assigned being the difficulty in getting suitable help on the farms. A great many farmers who had been exhibitors in previous years informed the writer that but for the labor trouble they would have been willing exhibitors but that it seemed impossible to get sufficient help to enable them to fit and prepare their animals for the show ring. In many cases farmers were absent from the fair for the same reason.

As a rule, the quality and condition of the stock exhibited was good. At the larger fairs above mentioned there were some splendid classes of horses, cattle, sheep and swine, and in these classes there was a great deal of interest manifested by both the exhibitors and spectators, especially while the judging was being done. As in previous years, the judges were all selected and provided by the Department, and of the ninety-four fairs and exhibitions held only one trivial complaint of the judging reached this office, and on investigation, it was found to be without any substantial grounds. As usual, the fairs held during the early part of the summer—July and August—made the best exhibits in live stock, while the fairs held later in the season excelled in soil products, such as grain, grasses and roots, as well as in dairy products.

### **THE QUESTION OF THE SMALL FAIR.**

Speaking generally, it may be said of the fairs in 1917 that the larger fairs and exhibitions were better than ever, and the smaller fairs, with a very few exceptions, were poorer than ever. This being the case, it becomes a question whether these small fairs should be continued indefinitely or not. My own idea is that in a good many instances these smaller fairs might, with advantage, be grouped together or merged into the larger fairs. Three or four small fairs, where there has been very little competition and almost no visible life or enthusiasm, might be amalgamated and a somewhat larger prize list offered that would make the larger fair



CATTLE AT THE EDMONTON SPRING SHOW

really worth while. I am satisfied that, if such an arrangement could be made, it would not only be a saving of money but a real benefit to the various communities. I have in mind one fair this last season where in both the horse and cattle sections there were only two classes in which more than two animals were shown. Such a fair is an absurdity and quite unworthy of any Government grant, in my opinion.

The Calgary Winter Fair held in December was extremely successful, notwithstanding the cold weather which prevailed that week. The special feature of the fair was the Baby Beef Competition for boys and girls and for which a most liberal and attractive prize list was offered. The competition was very keen and the greatest possible public interest was manifested in this unique contest. It was unanimously decided to renew the competition next year and to make certain extensions and improvements on the prize list and in some of the conditions governing the contest.

#### EDUCATIONAL WORK.

Short Course Schools, with live stock demonstrations of four days each, were held this year as usual. The Canadian Pacific and Grand Trunk Railway Companies gave valuable assistance by furnishing the equipment and hauling the train free of charge. The places visited were:

Medicine Hat  
Retlaw  
Travers  
Blackfalds  
Stettler

Veteran  
Lougheed  
Camrose  
Holden  
Stony Plain

The attendance, despite extremely cold weather part of the time, was most liberal and gratifying. Interesting discussions took place at every point and many valuable suggestions were given and received, both by the staff and the visitors. At nearly every place visited a cordial invitation was given to "come again" soon. Those who took part in the work included:

H. A. Craig  
W. F. Stevens  
A. E. Meyer  
Jas. Clements

Prof. A. A. Dowell  
W. J. Elliott  
W. J. Stephen  
H. H. McIntyre

and Alex. Galbraith

A novel feature introduced for the first time was the killing of a hog at each place and a demonstration given by Mr. Stevens on the dressing of the carcass, the rendering of the lard and the making of pork sausages. This demonstration was fully appreciated by the onlookers.

The household science and home nursing classes in connection with the Short Course Schools were successfully held at all the places visited and most liberally attended. This branch is doing excellent work and finds increasing appreciation from year to year. Miss MacIsaac superintended the Schools as usual and was ably assisted by Mrs. Esmond and the Misses McDermid and Morkin.

#### MIXED FARMING SPECIAL TRAIN.

This Demonstration Train, so popular the previous year, was again sent over the Province and was keenly appreciated. The high standard of excellence and interest of 1916 was increased noticeably in 1917. Fifteen cars and coaches of exhibits were fitted up, making in all probably the

most perfectly equipped train ever sent out by any Government for such a purpose. Many prominent visitors and agricultural educators from the United States enthusiastically expressed their admiration of this important practical work and their determination to imitate, as far as possible, the same system in connection with their respective State Agricultural College Extension Work. The following forty-nine places were visited, and the total attendance was eighteen thousand one hundred:

*Empress Branch, C.P.R.*

Empress	Gleichen
Pancras	Langdon
Jenner	Shepard
Bassano	Calgary

*Lacombe Branch, C.P.R.*

Clive	Coronation
Alix	Veteran
Erskine	Loyalist
Stettler	Consort
Botha	Monitor
Gadsby	Kirriemuir
Halkirk	Compeer
Castor	Bideford
Fleet	

*Wetaskiwin Branch, C.P.R.*

Provost	Lougheed
Cadogan	Sedgewick
Metiskow	Killam
Czar	Strome
Hughenden	Daysland
Amisk	Bawlf
Hardisty	Camrose

*Edmonton, Dunvegan & B.C.Ry.*

High Prairie	Sexsmith
Peace River	Grande Prairie
Falher	Clairmont
Donnelly	Swan River
Spirit River	Sawridge

Included in the Lecture and Demonstration Staff were the following:

Hon. Duncan Marshall	Minister of Agriculture.
H. A. Craig	Deputy Minister of Agriculture.
James Dougall	General Agricultural Agent C.P.R.
Alex. Campbell	Traffic Mgr., Edmonton, Dunvegan & B.C.Ry.
A. E. Howes	Dean of Faculty of Agriculture.
A. A. Dowell	Prct. Animal Husbandry, College of Agriculture, Edmonton.
W. J. Elliott	Principal, School of Agriculture, Olds.
W. J. Stephen	Principal, School of Agriculture, Claresholm.
F. S. Grisdale	Principal, School of Agriculture, Vermilion.
C. P. Marker	Dairy Commissioner, Provincial.
W. F. Stevens	Live Stock Commissioner.
Dr. P. R. Talbot	Provincial Veterinarian.
S. G. Carlyle	Superintendent, Demonstration Farms.
J. D. Smith	Superintendent, Seed & Weed Branch.
A. W. Foley	Superintendent, Poultry Branch.
Benjamin Lawton	Provincial Game Guardian.
D. McEachern	Assistant Game Guardian.
A. C. McFadyen	Assistant Game Guardian.
A. E. Meyer	Live Stock Instructor.
J. Shackleton	Superintendent, Provincial Poultry Plant.
Wm. Ingram	Assistant Supt. Provincial Poultry Plant.

Albert Hunt .....	Assistant in Poultry Car.
H. H. McIntyre .....	School of Agriculture, Vermilion.
H. W. Scott .....	School of Agriculture, Claresholm.
J. C. Hooper .....	School of Agriculture, Claresholm.
G. R. Holeyton .....	School of Agriculture, Olds.
Henry Saville .....	School of Agriculture, Olds.
H. S. Pearson .....	Dairy Instructor, Red Deer.
G. W. Scott .....	Dairy Instructor, Innisfail.
N. Steckle .....	Assistant to Live Stock Commissioner.
Alex. Galbraith .....	Superintendent of Fairs and Institutes.
A. G. Eadie .....	Assistant Superintendent of Fairs and Institutes.
Miss M. MacIsaac .....	Superintendent of Women's Institutes.
Miss Bessie McDermand .....	Domestic Science Instructress.
Miss Mathilde Lavallee .....	Domestic Science Instructress.
Miss Robertson .....	Domestic Science Instructress.
Miss Storey .....	Domestic Science Instructress.
Miss Annie McKenzie .....	Nursing Instructress.
Miss E. Cuming .....	In charge of Nursery Car.
Mrs. Hunt .....	Assistant on Nursery Car.

This Train of fifteen cars and coaches was admittedly well equipped. It contained as usual draft horses, beef cattle, dual purpose cattle and dairy cattle; a dairy exhibit; exhibits from the Schools of Agriculture, showing the work of boys and girls; an exhibit of hog and sheep-pen models by the Live Stock Commissioner; the Provincial Veterinarian's exhibit of poisonous weeds and hereditary defects in horses; a car containing live poultry, and poultry houses, trap nests, etc.; a car of seed and grain exhibits, and weeds shown in the growing stage, so that every farmer could recognize the ones he or his neighbors were most troubled with; an exhibit of model barns from the Demonstration Farms; a natural history car showing mounted specimens of nearly all the birds and wild animals of Alberta; a Women's Institute Car in which demonstrations were given daily in cooking and canning, and a nursery car wherein the children were cared for and entertained while their mothers attended the domestic science demonstrations.

#### ACKNOWLEDGMENTS.

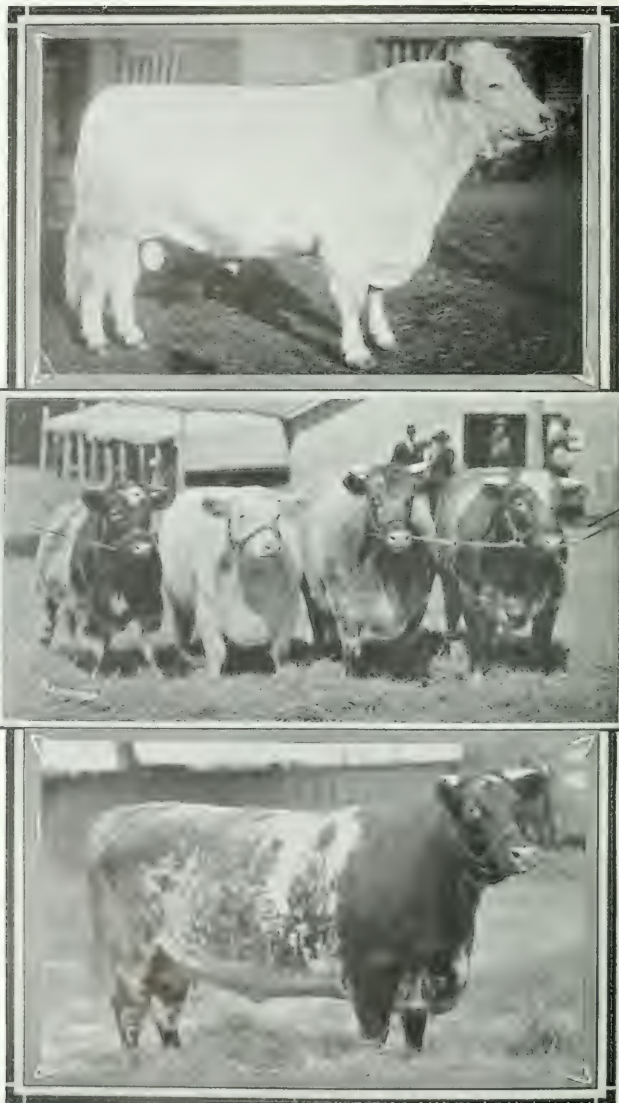
The Department acknowledges with thanks the kindly assistance of the following parties in loaning them suitable and high class animals for use at the Short Course Schools and Mixed Farming Train:

George Cresswell	J. D. McGregor
Lawrence Rye	A. R. Gillis
W. J. Dodd	G. E. Rosamund
A. E. Davenport	Senator Talbot & Son
Frank Collicutt	Yule & Bowes

#### INSTITUTE MEETINGS.

As usual the regular Institute meetings were held by all the agricultural societies in order to qualify them for the Government grant on their membership. In addition there were Institute meetings held and addressed by Messrs. G. Hutton, Sr., and Bourgeois, at the following places:

St. Albert	Heinsbury
Villeneuve	Onion Lake
Morinville	Mooswa
Rivierre Qui Barre	Ferguson Flats
Farra Dale	Elk Point



GLIMPSES OF INTERNATIONAL SHORTHORNS

Rose Ridge  
Diligence  
Proulx  
Rae  
Noyes Crossing  
Egg Lake  
Hopkins  
Lake Eliza  
Lake Bellevue  
Rivierre Castor  
Lea Park

Bonnyville  
Durlingville  
Beaver Crossing  
Cold Lake  
Frog Lake  
St. Paul de Metis  
St. Edouard  
Flat Lake  
Glendon  
Rife

#### NEW AGRICULTURAL SOCIETIES.

New societies have been organized during the past year at the following places, and charters duly furnished. They will hold their initial Fairs in 1918.

Busby  
Benalto  
Richdale  
Durlingville

Sibbald  
Lamont  
Big Valley  
Foremost

#### SCHOOL FAIRS.

The following School Fairs were held, with marked success, under the direction of the various district agents representing the Department. These School Fairs were most liberally attended; the exhibits of calves, colts, field and garden produce, as well as the pupils' school work, eliciting many complimentary remarks from the numerous visitors.

Sedgewick .....	Sept. 4th, in charge of H. W. Scott.
Alliance .....	Sept. 7th, in charge of H. W. Scott.
Claresholm .....	Sept. 5th, in charge of J. C. Hooper.
Stony Plain .....	Sept. 11th, in charge of H. H. McIntyre.
Trochu .....	Sept. 6th, in charge of W. J. Elliott.
Bowden .....	Sept. 14th, in charge of W. J. Elliott.
Olds .....	Sept. 18th, in charge of W. J. Elliott.
Vermilion .....	Sept. 13th, in charge of F. S. Gridale.

Addresses were made by Messrs. H. A. Craig, Prof. Dowell, S. G. Carlyle, A. E. Meyer, H. W. Scott, W. J. Elliott and others.

#### EXCURSIONS.

Excursions to the Schools of Agriculture at Claresholm, Olds and Vermilion were arranged for and a goodly number of visitors took advantage of the reduced rates to inspect and see for themselves the real, practical work that is being carried on in recent years at those Schools. Special trains were run to each point and free lunch was served to all the visitors, who doubtless appreciated the opportunity of examining the Schools, the Experimental Plots of grain, grasses and roots, as well as the general crops and methods employed on the Demonstration Farms.

Respectfully submitted,

ALEX. GALBRAITH,

*Superintendent of Fairs and Institutes.*

## *REPORT OF WOMEN'S INSTITUTES*

SIR.—I have the honor to submit herewith the Women's Institute Annual Report for 1917.

There is no Women's organization in the Province today that can show the rapid increase of membership and branches during the past year as that of the Alberta Women's Institutes, which has increased in membership from 3,700 to 8,000 and has grown from 135 to 212 Branches. Not only have 77 new Institutes been formed but there has also been a tremendous increase in the membership of the old ones. One Institute increasing its membership of 30 to 130 in two months.

The objects of the Women's Institute as outlined in the Women's Institute Act are as follows:

1. The study of home economics (including home nursing, household science, sanitation, food values, sickroom cookery, house furnishing, sewing and other matters), child welfare, prevention of disease, local neighborhood needs, industrial and social conditions.
2. Establishing the Women's Institute as a social and educational centre in the community and by utilizing it as a means of welcoming new settlers.
3. The encouragement of agriculture and improvement of agricultural conditions.
4. The holding, establishment and maintenance of demonstrations, lectures, short course schools, travelling and other libraries, exhibitions, competitions, meetings, conventions and such other utilities and attractions as may from time to time be deemed useful for the promotion of the foregoing objects or any of them.

Organized with so broad a scope the work of the Institute has been wide and varied. Of course, like many other organized bodies as soon as the Great War broke out it immediately swung into Patriotic Work. To show its activities along this line, during the past year \$30,116.87 have been raised for war purposes, 32,243 articles have been sent to our soldiers Overseas, and many prisoners have been adopted by various Institutes.

During the year 35 Short Course Schools in Home Nursing, First Aid and Cooking have been given. Ten of these were given in conjunction with the Agricultural Short Course School. Fifty demonstration lectures in the Home Canning of Vegetables and Fruits were also given by the Assistant Superintendent, Miss B. McDermand, at as many points throughout the Province, and 40 demonstration-lectures in Home Nursing and First Aid were given by Miss A. MacKenzie of the Agricultural Schools Staff. Ten thousand copies of the Home Canning Bulletin prepared by Miss McDermand were also distributed during the year.

During the tour of the demonstration train, 43 Institutes were organized. One very practical feature about this train was the Women's Institute Nursery Car. This car was in charge of competent nurses with



whom the mothers could leave their children while they attended the lectures and visited the various exhibits throughout the train. 2,341 babies were taken care of during this trip.

Because of the great crying need of facilities for taking care of the sick in the rural districts, a great many Institutes have taken this up as their special work. One Institute secured the co-operation of the business men in the district and has erected a building where they not only have a rest room and lecture room but where they also provided headquarters for a district nurse. Another Institute has worked for the scheme of having a municipal hospital in the district and the plans are just about completed, and still others are taking up the matter of medical inspection in the schools. Another Institute, in a small town engaged a doctor, guaranteeing his salary and providing free treatment for outlying country districts.

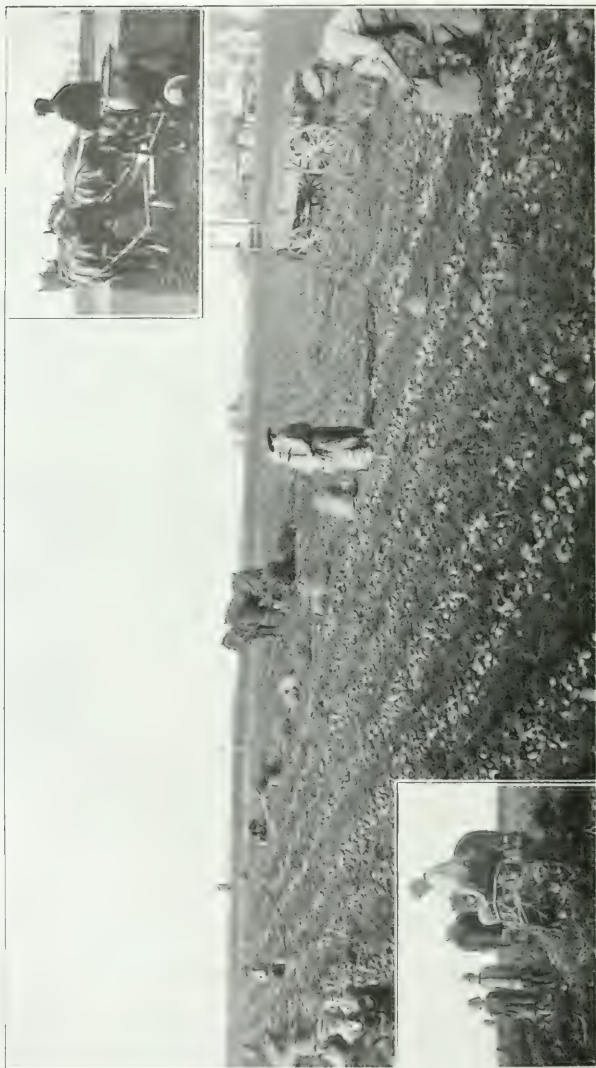
Hot lunches for school children has been a very active question in rural communities. One Institute asked the school trustees to provide a school kitchen which they did and now the children in that district not only have the hot lunch but are taught some simple rudiments of domestic science. Twenty Institutes, these in the smaller towns have provided rest rooms wherein the country women when in town can rest and enjoy a few hours of relaxation.

The Third Annual Convention of the Institute was held at Calgary on March 14th, 15th and 16th. Three District Conferences were also held during the year at Claresholm on November 6th and 7th, Olds, November 8th and 9th, and Vermilion, November 14th and 15th. These conferences proved a great value to the women as ideas were freely exchanged, difficulties solved and plans laid for special work along lines of conservation, production and child welfare. 1918 promises to be a record year for increase both in membership and in new Institutes.

Respectfully submitted,

MARY MACISAAC,

*Superintendent Women's Institutes.*



PRODUCING LARGE FOOD SUPPLIES PER ACRE

## REPORT OF THE SEED AND WEED BRANCH

SIR,—I beg to submit the report of the Seed and Weed Branch of the Department for the year 1917.

The weed work of 1917 was carried on by the same plan as that followed in 1915-16. Inspectors were appointed at different dates, from May 1 to July 1. The dates of appointments were made according to soil, climatic and weed conditions in the different districts. The early appointments made where such weeds as stinkweed and tumbling mustard were most prevalent. These weeds being Winter Annuals, it was imperative that inspectors be in the field early. No inspectors were engaged in the northern part of the Province. It has been found that such money as is voted for weed inspection work can be most profitably spent in taking care of the southern portion of the Province, where the farms have no natural shelter. Large areas are given to grain growing where high winds blow and weeds are of tumbling habits.

Thirty-one local inspectors were engaged in the South during 1917. Their districts varied in size, according to the acreage under cultivation, the average being about ten townships each. Together with these thirty-one local inspectors, four travelling inspectors were engaged, who visited the local districts and gave instructions with a view of establishing uniformity in the work. These four travelling inspectors also looked after any complaints received by the office from the northern part of the Province, where no local inspectors were engaged.

### CANADA THISTLE AND STINKWEED TROUBLESOME.

The weed conditions throughout the Province are changing to some extent every year. Such weeds as Tumbling Mustard and Russian Thistles are disappearing fast each year, while Canada Thistle and Stinkweed are slightly increasing. Ball Mustard is decreasing in the northern part of the Province, while Perennial Sow Thistles and Wild Oats are increasing.

Summing up the year's work and the conditions of the weed situation it is obvious that the work of the weed inspectors has practically narrowed down to the looking after unoccupied lands, railway property and incorporated cities, towns and villages. The average farmer now realizes that if he wishes to succeed in farming he himself must care for the weeds on his farm and road allowance next to him.

### EDUCATIONAL WORK.

Educational work is believed to be one of the most important factors in the eradication or control of weeds, and with this in view the Department has used every possible means to put before the people the advantages of becoming familiar with the different weeds and methods of eradication. This was carried on by first publishing an illustrated weed bulletin containing some 130 pages with colored plates of the most important weeds and their seeds. Seventeen thousand bulletins were issued, forty per cent. of the number being distributed during the year. Large posters of Canada Thistle and Perennial Sow Thistle were distributed

throughout the Province. These were posted in conspicuous places by both the officers of rural municipalities and the Government local inspectors. About eight thousand of these colored posters have been posted.

During the winter months, lectures at the Short Course Schools were given on identification and eradication of weeds. Institute meetings were held in different parts of the Province. Work of this kind was carried out also on the Mixed Farming Special, which covered a great portion of the Province during June, July and August. The half of a passenger coach was used for the display of weeds and their seeds, etc., the weeds being produced in earth, thus showing them in growing condition. An inspector was in charge of this exhibit to discuss the habits and peculiarities of the weeds and their habits of propagation. This branch, during the summer months, identified many hundred plants sent in by farmers. Sometimes this work takes practically the time of one official.

The following is a list of Weed Inspectors employed during 1917.

<i>Name</i>	<i>Address</i>
Archibald, A. R. ....	Cardston.
Beard, H. A. ....	Taber.
Brown, James ....	Nanton.
Callaway, E. J. ....	Cochrane.
Clark, John ....	Gleichen.
Chambers, John ....	Avalon.
Elliott, T. J. ....	Pincher Station.
Gillis, A. C. ....	Bowell.
Grady, L. T. ....	Warner.
Gillespie, W. H. ....	Okotoks.
Hogarth, Robert ....	Cochrane.
Hopewell, Edward ....	Cardston.
Haines, L. A. ....	Turin.
Johnston, Frank ....	Bassano.
Lynn, Edward ....	Albion Ridge.
Long, Allen P. ....	Brooks.
Murray, George ....	Whitla.
MacLean, Alex. ....	Staunton.
McDougall, Dan. ....	Winnifred.
McDougall, J. F. ....	Granum.
McAllister, William ....	Exeel.
Nalder, N. B. ....	Raymond.
Pearson, George ....	Macleod.
Reis, D. S. ....	Masinasin.
Robinson, Hugh L. ....	Eyremore.
Sobey, E. S. ....	Alderson.
Smibert, G. H. ....	Irvine.
Taylor, E. J. ....	Barnwell.
Wickson, A. M. ....	Cayley.
Wood, Harold ....	Magrath.
Wood, Ray ....	Champion.

#### SEED FAIRS.

The Seed Fairs held during 1917 were about the same in number as in 1916. The number of entries was small but the exhibits showed an improvement in the quality of the exhibits. A few years ago it was common to find a few wild oats and other noxious weed seeds in an exhibit, while last year it was a rare case. This is encouraging, as it shows that the rules of the Department with respect to noxious weed seeds in exhibits are being regarded.

The Provincial Seed Fair was held in Calgary. It proved to be satisfactory and many valuable suggestions were given in such exhibits as potatoes, peas, rye, barley and grass seeds. Special prizes to the amount of \$600.00

were donated by the business men of Calgary, besides \$1,500.00 cash prizes which were offered by the Department. The specials which were donated enabled the Department to enlarge its prize list, especially in potatoes in which over forty exhibits were shown.

A bulletin was issued by the Department giving the variety, amount for sale, and price per bushel of all the exhibits at both the Provincial Seed Fair and local seed fairs. This bulletin was distributed and was found to be a splendid means of informing farmers as to where they could secure reliable seed.

The following is the list of Seed Fairs held in fall of 1916 and winter of 1917, with dates, and names of judges:

<i>Society</i>	<i>Date</i>	<i>Judges</i>
Stony Plain .....	Nov. 25, 1916..	J. D. Foster & J. M. Clark.
North Alberta .....	Dec. 14, 1916..	E. H. Malcolm & J. M. Clark.
Wetaskiwin .....	Jan. 6, 1917..	J. D. Foster & J. M. Clark.
Daysland .....	Jan. 15, 1917..	E. R. Rasmussen.
Sedgewick .....	Jan. 16, 1917..	E. R. Rasmussen & J. M. Clark.
Strome-Killam .....	Jan. 17, 1917..	E. R. Rasmussen.
Edgerton .....	Jan. 17, 1917..	J. D. Foster
Nanton .....	Jan. 19, 1917..	H. McIntosh.
Empress .....	Jan. 24, 1917..	{ Chris Stinson, Man. { W. W. Thompson, Sask.
Lacombe .....	Jan. 24, 1917..	J. D. Foster & J. M. Clark.
Langdon-Bow River ..	Jan. 26, 1917..	A. S. Blackwood.
Deseret .....	Jan. 26, 1917..	Hugh McIntosh.
Leduc .....	Jan. 30, 1917..	J. D. Foster.
Hays .....	Feb. 3, 1917..	E. R. Rasmussen.
Vermillion .....	Feb. 6, 1917..	F. S. Grisdale & D. McKenzie.
Vegreville .....	Feb. 6, 1917..	J. D. Foster.
Olds .....	Feb. 7, 1917..	A. S. Blackwood.
Lloydminster .....	Feb. 7, 1917..	J. D. Foster.
Taber .....	Feb. 7, 1917..	H. McIntosh.
Winnifred .....	Feb. 8, 1917..	H. McIntosh.
Stavely .....	Feb. 9, 1917..	A. S. Blackwood.
Innisfree .....	Feb. 9, 1917..	J. D. Foster.
Camrose .....	Feb. 10, 1917..	J. D. Foster.
Okotoks .....	Feb. 13, 1917..	H. McIntosh.
Bowden .....	Feb. 14, 1917..	A. S. Blackwood.
Irma .....	Feb. 14, 1917..	E. R. Rasmussen.
Tofield .....	Feb. 15, 1917..	E. R. Rasmussen.
Viking .....	Feb. 17, 1917..	E. R. Rasmussen.
Provost .....	Feb. 21, 1917..	E. R. Rasmussen.
Consort .....	Feb. 21, 1917..	Geo. Hutton, Sr.
Beaver Lodge-Lake Saskatoon .....	Feb. 28, 1917..	A. Cravath & J. M. Clark.
Oyen .....	Mar. 17, 1917..	A. S. Blackwood.
Cochrane .....	Mar. 31, 1917..	A. S. Blackwood.

#### FIELD CROP COMPETITIONS.

The number of Field Crop Competitions held during 1917 showed a decrease compared with 1916. This was due to certain portions of the Province being affected by drouth. Six Agricultural Societies prepared to hold competitions, but cancelled them at the last moment owing to poor crop returns caused by drouth. The fifteen competitions that were held were successful, some having as high as 110 entries. The exhibits were of high standard in every respect. Many Societies offered prizes in seven different kinds of crops, such as wheat, oats, barley, green feed, roots, potatoes and garden vegetables. The general opinion is that Field Grain Competitions are proving more useful in the improving of good seed than the Seed Fairs.

The following is the list of Societies holding said competitions with date of same and name of Judges:

<i>Society</i>	<i>Date</i>	<i>Judge</i>
St. Albert .....	Aug. 3, 1917....	J. D. Foster.
Vegreville .....	Aug. 7, 1917....	J. D. Foster.
Manville .....	Aug. 9, 1917....	J. D. Foster.
Sedgewick .....	Aug. 10, 1917....	H. W. Scott.
Waterhoie .....	Aug. 11, 1917....	J. M. Clark.
Wainwright .....	Aug. 13, 1917....	F. S. Grisdale.
Stony Plain .....	Aug. 14, 1917....	J. D. Foster.
Consort .....	Aug. 14, 1917....	A. G. Eadie.
Hanna .....	Aug. 14, 1917....	W. S. Jacobs.
Munson .....	Aug. 15, 1917....	W. S. Jacobs.
Beaver Lodge & Lake Saskatoon .....	Aug. 15, 1917....	J. M. Clark.
Edgerton .....	Aug. 20, 1917....	F. S. Grisdale.
Daysland .....	Aug. 20, 1917....	H. W. Scott.
Wetaskiwin .....	Aug. 21, 1917....	J. D. Foster.
Irma .....	Aug. 21, 1917....	J. M. Clark.

#### DISTRIBUTION OF SEED GRAIN.

Early in the winter of 1916-17, it became apparent that in parts of the Province, especially in the districts north, north-east and north-west of Edmonton, because of the severe frost in the season of 1916, a very great scarcity of seed grain existed and after a careful investigation made by the Seed Department, the Legislature enacted a measure for relief cited as *The Seed Grain Act, 1917*, authorising the distribution under the provisions of the Act of seed grain to the farmers in need of such assistance. Organization was immediately proceeded with and the whole of the districts was practically covered and every worthy case was provided for, the Provincial Department providing seed to holders of patented homesteads. Assistance was given by this Department to a total of four hundred and forty farmers, the following amount of grain being supplied and the total value of which was \$39,713.53; 9,102 bushels of wheat, 34,303 bushels of oats and 2,767 bushels of barley.

All amounts were secured by liens on the lands owned by the farmers to whom advances were made and all notes made payable January 1, 1918, and at date of this report the amounts paid on notes was about \$14,000. Great care was taken to ensure that none but good seed grain was supplied and no complaint has been made to the Department of other than such having been furnished. The whole working out of the arrangement was conducted with a minimum of friction or delay, and the Department is assured that satisfaction to all interested was given and a great impetus given to production in the districts which were assisted. This branch also endeavored to assist in the marketing of car lots of all seed grains and potatoes, and this work was successful as far as it went. Timothy seed in car lots were sold to go east as far as Quebec City, several cars of seed oats, wheat and barley were placed in the Province of Quebec, and many cars of potatoes were placed in Ontario and Quebec. The first car of potatoes from Swan River, Alberta, was shipped by the Department to Toronto, Ont., which landed there with no loss. Altogether, this branch was responsible for the marketing of over 100,000 bushels of seed grain and forty cars of potatoes.

Respectfully submitted,

J. D. SMITH,

*Supt., Seed and Weed Branch.*

## REPORT OF THE POULTRY SUPERINTENDENT

SIR,—I beg to submit herewith the report of the Poultry Branch for the year 1917.

### GENERAL SURVEY.

The year 1917 has not been a very encouraging one for poultry raisers generally. The steady increase in the price of all kinds of poultry foods has had the effect of causing many to either reduce their flocks or to entirely discontinue the keeping of poultry. The burden of the high cost of feed fell on the urban poultry raisers and on those keeping poultry on a large scale. Unfortunately some of the larger operators disposed of their entire flocks.

That there was a decided advance in the cost of poultry foods will be noted in the summary of the egg-laying competition which took place at the Provincial Poultry Plant during the year. Wheat advanced from \$1.85 per 100 lbs. to \$2.90 per 100, Beef scrap from \$4.00 per 100 to \$5.50 per 100, and other foods proportionately. In the successful feeding of poultry certain foods are necessary, and few if any satisfactory substitutes are available or possible. The elevator screenings fed other animals by way of substitutes are not of any value to poultry raisers owing to the small amount of wheat, oats and barley contained.

While the cost of feed has been abnormally high the low prices offered for poultry and eggs has had a more serious effect. In the prices paid for eggs throughout the year there was some advance over the prices of 1916, but quotations for live and dressed poultry showed little or no advance, due no doubt to the fact that a considerable proportion of the 1916 crop was still being held in storage. The situation, so far as the complaint of the poultry raisers indicated, was that the price of eggs and dressed poultry had not advanced in proportion to the advance of other meats.

In view of the many letters received complaining of the poor poultry markets and the situation generally a number of forms were sent to responsible breeders in various districts throughout the Province. These were promptly filled in and returned and the answers as given in the three following returns from the Southern, Central and Northern portions of the Province give a fair idea of prevailing conditions as reported from all parts of the Province.

### POULTRY STATISTICS AND INFORMATION.

#### SOUTHERN.

1. Are producers taking the same interest in their poultry as before the war? A. No, they are not, it is hard to get a person to talk poultry any more.
2. Are the flocks being increased or decreased in size? Decreased.
3. Were there as many chicks hatched as in the previous year? No.
4. Were hatches this year good or poor? Quite poor.
5. Was there a high, low or normal death rate? About normal.
6. What diseases, if any, are most common to the district? White diarrhoea seems to be the most common.
7. How does the egg yield compare with that of 1916? It falls away below the yield of 1916.

8. Are the prices for eggs in 1917 satisfactory? Yes, they have never been below 30 cents. They are 45 cents now (October 1).

9. Are satisfactory prices being offered for dressed poultry? Our butchers have handled practically no dressed poultry this season.

10. What appear to be the chief difficulties in poultry raising at present and what suggestions have you to offer by way of assisting and encouraging poultry raising? The chief difficulty in poultry is the high price of grain. Besides the average farmer thinks the mixed bunch of scrubs lay more eggs than the pure bred birds. If the Government could offer some inducement for breeding pure bred stock it might help, but it might not. If there was some way to get people to take up the breeding of poultry they might get interested. I never cared for poultry until I started to breed pure bred stock, but always liked good stock of any kind.

I believe the above to be a fair report of poultry conditions as they exist in this district.

Signed.....

Address.....

#### CENTRAL.

1. Are producers taking the same interest in their poultry as before the war? Yes, indications show increased interest.

2. Are the flocks being increased or decreased in size? Some increased, others decreased.

3. Were there as many chicks hatched as in the previous year? Generally no.

4. Were hatches this year good or poor? Poor, fertility being bad.

5. Was there a high, low or normal death rate? Under normal.

6. What diseases, if any, are most common to the district? Colds, followed by roup in all its forms. Going light.

7. How does the egg yield of 1917 compare with that of 1916? Very favorably, greater efforts are being made to increase production.

8. Are the prices for eggs in 1917 satisfactory? More so than in any previous year.

9. Are satisfactory prices being offered for dressed poultry? Not sufficiently high to offset increased price of feed.

10. What appear to be the chief difficulties in poultry raising at present and what suggestions have you to offer by way of assisting and encouraging poultry raising? Carelessness in housing, want of cleanliness in poultry houses, indiscriminate crossing and setting eggs from the flock in general, instead of selecting the best females and mating for better results. Feeding chicks and adults all together. The hens get too fat, and the chicks do not get enough and so do not thrive. Assistance may be given by lectures, also by urging payment for eggs or fowls according to quality.

Name.....

Address.....

#### NORTHERN.

1. Are producers taking the same interest in their poultry as before the war? Yes.

2. Are the flocks being increased or decreased? About the same.

3. Were there as many chicks hatched as last year? Yes.

4. Were hatches this year good or poor? Poor early, good later.

5. Was there a high, low or normal death rate? Normal.

6. What diseases, if any, are most common to the district? Roup and going light (probably tuberculosis).

7. How does the egg yield of 1917 compare with that of 1916? About the same.

8. Are the prices for eggs in 1917 satisfactory? Spring and fall, yes; midsummer, no.

9. Are satisfactory prices being offered for dressed poultry? Yes.

10. What appear to be the chief difficulties in poultry raising at present and what suggestions have you to offer by way of assisting and encouraging poultry raising? Coyotes practically cleaned out several flocks last year, not quite so bad this year. I would suggest a continuance of the bounty on coyotes, and more poultry education among the farmers. After a poultry meeting interest runs high but these are so few and far between that interest wanes.

Signed.....

Address.....



While these returns report increased production in some districts a reduced production was reported from other districts. Complaints were general in the excessive cost of feed and the price of poultry products not being correspondingly high. Many districts also reported that considerable damage was being done to the industry by the increase in coyotes and poultry raisers asked that some action be taken to destroy them.

#### EDUCATIONAL WORK.

The educational work during the year has been conducted along lines similar to those of former years. Instruction in all branches of poultry raising has been given at the Agricultural Schools as required by the Agricultural School Board as follows:

##### *First Year Students.*

1. General Survey.
2. Location of Poultry-houses and Plants.
3. Poultry-house Construction.
4. Interior fixtures of Poultry-houses.
5. History and Development of Domestic Poultry.
6. Egg Production.
7. Strain-building.
8. Incubation.
9. Rearing.
10. Fattening.
11. Marketing (a) Eggs (b) Poultry.
12. Turkeys.
13. Ducks.
14. Geese.
15. Identification of Utility Breeds.

##### *Second Year Students.*

1. General Review of First Year Work.
2. Technical Poultry Terms.
3. Classification of Poultry Produce for Markets.

During the spring months a poultry course was given to returned soldiers at the Olds Agricultural School. The course included the same subjects as given to regular First Year students with the addition of much practical work. Incubators were supplied and operated with eggs purchased by the soldiers. Practical work was also carried on in natural incubation with setting hens. Results in both systems of incubation were reasonably satisfactory. Brooders were provided and brooder houses built by the soldiers themselves. Practical work was undertaken in rearing by both the natural and artificial systems. Practical work was also undertaken in poultry house construction. Two modern poultry houses 12x12 were built and equipped by the soldiers and later used as winter quarters for the pullets reared from the spring hatching.

At the opening of the fall term of the regular course the work was continued by the construction of standard fattening crates and the cockerels and undesirable pullets reared during the summer were placed in the crates and fleshed with suitable rations. At the completion of the fattening period the birds were killed and prepared for market, thus completing the course given the returned soldiers.

## TRAVELLING POULTRY EXHIBIT.

During the summer a car of poultry exhibits was taken through the Province with the Mixed Farming Special sent out by the Agricultural Department. The car contained models of various styles of poultry houses, with working models of interior fixtures, trap-nests, open nests, dark nests, roosts, drop-board, drop-curtain, self-feeding hoppers, automatic drinking cans, and other conveniences, various kinds of commercial poultry foods for young and older stock, records of egg-laying results, etc.

Live poultry consisting of a pen each of Barred Rocks, Buff Orpingtons, White Wyandottes and Rhode Island Reds of standard qualifications were on exhibition to demonstrate type, etc., of pure bred poultry.

## POULTRY BULLETIN.

Valuable assistance was given the industry through the distribution on "Successful Poultry Raising." There was a great demand for this publication and the second edition was exhausted. A third edition was prepared with some slight alterations and additions and will be ready for distribution early in 1918.

## POULTRY ASSOCIATIONS AND EXHIBITIONS.

During the year a new poultry association was organized at Ogden that has made good progress both in membership and attendance. A poultry show was held by this association in November that did credit to the organization. Large and successful shows were held also at Lethbridge, Calgary, Wetaskiwin and Edmonton.

The 1917 Provincial Poultry Association Show was held at Calgary in conjunction with the Provincial Fat Stock Show and proved to be the most successful poultry show ever held in the Province as respects both numbers and quality. In many of the popular breeds several hundred entries were on exhibition. The poultry shows held by the other associations already mentioned were equally in advance of those held in previous years in both quality and number of exhibits. At no previous time has the Province contained as many pure bred fowl of high exhibition quality as in the year 1917.

The Annual Meeting of the Provincial Poultry Association was held at Calgary during the Poultry Show. At this meeting it was decided to hold the Provincial Show at Calgary for a few years as better accommodation could be provided there. This is necessary owing to the large increase of entries and patronage to the provincial show.

The officers of the Provincial Poultry Association for 1918 are as follows:

Patrons: Hon. R. G. Brett, Hon. Chas. Stewart.

Hon. President: Hon. Duncan Marshall.

Hon. Vice-Presidents: Hon. A. J. McLean, H. A. Craig, E. N. Barker, P. Burns, John McDougall.

President: C. M. Baker, Calgary.

1st Vice-President: A. E. Humphries, Lethbridge.

2nd Vice-President: W. A. Moore, Medicine Hat.

Secretary-Treasurer: P. J. Tims, Calgary.

Executive Committee: Calgary, W. N. Gibson; Edmonton, J. Shackleton; Medicine Hat, J. Currie; Lethbridge, J. Westbrook; Wetaskiwin, C. D. Enman.

Auditor: J. Sutherland, Calgary.

## EGG-LAYING COMPETITION.

During the year the Third Annual Egg-laying Competition took place at the Provincial Poultry Plant on the University Grounds, Edmonton South. Twenty-two pens were entered, and while the egg yield was not as good as it was in the previous year, satisfactory results were obtained as shown in the returns for the final month and summary as follows:

## ELEVENTH AND FINAL MONTH

## ALBERTA TRAP-NEST EGG-LAYING COMPETITION.

Third Egg-laying Competition held under the supervision of the Provincial Department of Agriculture at the Provincial Poultry Plant, University Grounds, South Edmonton, Alta., from November 15, 1916, to October 14, 1917.

## TOTAL EGGS LAID FROM NOVEMBER 15 TO OCTOBER 14.

Pen	Owners and Breeds	Eggs in Month	Total Eggs
12	D. Gibbard, Mission City, B.C., Barred Rocks .....	53	826
19	L. F. Solly, Westholme, B.C., White Wyandottes .....	66	820
13	C. C. Ewing, Lacombe, Alta., White Wyandottes .....	43	802
18	A. R. Gillies, Clover Bar, Alta., White Wyandottes .....	79	758
11	C. C. Ewing, Lacombe, Alta., Buff Orpingtons .....	46	672
3	John Tough, Dewberry, Alta., White Leghorns .....	59	616
2	Nels Linden, Wetaskiwin, Alta., Brown Leghorns .....	38	504
22	A. R. Gillies, Clover Bar, Alta., Barred Rocks .....	32	603
14	H. A. Clute, South Edmonton, Alta., White Wyandottes .....	25	588
6	Regan Bros., South Edmonton, Alta., Buff Orpingtons .....	26	565
4	G. C. Rogerson, Calgary, Alta., Rhode Island Reds .....	26	561
14	C. W. Robbins, Chilliwack, B.C., Buff Orpingtons .....	64	501
21	J. E. Swanson, West Edmonton, Alta., White Wyandottes .....	22	499
17	Robt. Henderson, Calgary, Alta., White Wyandottes .....	24	497
9	J. J. Skalitzy, Viking, Alta., Barred Rocks .....	44	463
5	E. F. Twitchell, Edmonton, Alta., White Rocks .....	11	449
20	J. C. Longmore, Edmonton, Alta., White Wyandottes .....	18	410
1	Finn & Storrar, Calgary, Alta., White Leghorns .....	2	388
16	Reid & Greenwood, Victoria, B.C., Rhode Island Reds .....	0	373
8	D. P. Woodruff, Magrath, Alta., White Cornish .....	31	342
10	E. J. Wyatt, Diamond City, Alta., White Wyandottes .....	27	337
7	E. S. Farren, Calgary, Alta., White Wyandottes .....	25	248

There are six birds in a pen except Pens 9, 14, 20, which have five; Pen 16 has three, and Pen 7 has two birds.

Summary:—Number of eggs laid during the month, 759.

Total to date, 11,922.

Average per hen for month, 5.92.

Total average, 92.85 eggs.

Pen No. 18 with 79 eggs holds the pen record for the month.

Highest individual records for the month:—Hen 69 with 27 eggs, and Hen 72 with 25 eggs, both in Pen 12.

Highest individual record for the competition is held by Hen No. 72 in Pen 12.

Pen 12 wins the competition with Pen 19 Second and Pen 13 Third.

Hen No. 91 in Pen 16 died from a blood vessel breaking at the heart.

Hen No. 89 died from inflammation of the ovary.

## FINAL REPORT AND SUMMARY.

## THIRD ALBERTA TRAP-NEST EGG-LAYING COMPETITION.

November 15, 1916, to October 14, 1917 (11 months).

Winning Pens	Owners and Breeds	Total Eggs	Receipts
12	D. Gibbard, Mission City, B.C., Barred Rocks	826	\$25.47
19	L. F. Solly, Westholme, B.C., White Wyandottes	820	30.07
13	C. C. Ewing, Lacombe, Alta., White Wyandottes	802	30.31
18	A. R. Gillies, Clover Bar, Alta., White Wyandottes	758	28.84

## INDIVIDUAL RECORDS OF WINNING PENS.

Pen 12— 80, 142, 160, 146, 118, 180.	Pen 13—122, 118, 128, 165, 114, 155.
Pen 19—157, 104, 167, 133, 118, 141.	Pen 18—142, 86, 140, 157, 141, 84.

## INDIVIDUAL RECORDS AND RECEIPTS.

Highest	Lowest
Hen 72 in Pen 12.....180..\$6.42	Hen 55 in Pen 10..... 2..\$ .08
Hen 121 in Pen 22.....171.. 6.63	Hen 60 in Pen 10..... 2.. .09
Hen 86 in Pen 15.....169.. 6.48	Hen 27 in Pen 5.....30.. .86
Hen 105 in Pen 19.....167.. 6.38	Hen 48 in Pen 8.....32.. 1.01
Hen 76 in Pen 13.....165.. 6.35	Hen 102 in Pen 17.....33.. 1.03
\$32.26	\$3.04

## HIGHEST INDIVIDUAL RECORDS AND RECEIPTS.

## WINTER MONTHS, NOVEMBER 15 TO APRIL 14.

Hen 121 in Pen 22.....79 eggs.....\$3.55
Hen 76 in Pen 13.....69 eggs..... 3.03
Hen 105 in Pen 19.....67 eggs..... 3.07
Hen 63 in Pen 11.....67 eggs..... 3.00

## HIGHEST PEN RECORDS AND RECEIPTS.

## WINTER MONTHS, NOVEMBER 15 TO APRIL 14.

Pen 13.....336 eggs.....\$14.53
Pen 19.....314 eggs..... 13.65
Pen 18.....300 eggs..... 12.97

## RECEIPTS FROM EGGS.

Nov. 15 to Dec. 14..... 414 eggs @ 60c per dozen.....\$20.70
Dec. 15 to Jan. 14..... 201 eggs @ 60c per dozen..... 10.05
Jan. 15 to Feb. 14..... 340 eggs @ 60c per dozen..... 17.00
Feb. 15 to Mar. 14.....1007 eggs @ 60c per dozen..... 50.35
Mar. 15 to Mar. 31.....1059 eggs @ 50c per dozen..... 44.12
Apr. 1 to Apr. 14.....1090 eggs @ 30c per dozen..... 27.25
Apr. 15 to Apr. 30.....1246 eggs @ 35c per dozen..... 36.34
May 1 to May 14..... 760 eggs @ 40c per dozen..... 25.33
May 15 to June 14..... 909 eggs @ 45c per dozen..... 34.08
June 15 to July 14.....1446 eggs @ 35c per dozen..... 42.17
July 15 to Aug. 14.....1524 eggs @ 35c per dozen..... 44.45
Aug. 15 to Aug. 31..... 679 eggs @ 45c per dozen..... 25.46
Sept. 1 to Sept. 14..... 488 eggs @ 50c per dozen..... 20.33
Sept. 15 to Sept. 30..... 505 eggs @ 50c per dozen..... 21.04
Oct. 1 to Oct. 14..... 254 eggs @ 55c per dozen..... 11.64

11,922

\$430.31

## PRICES OF EGGS.

Highest.....60c per dozen.	Lowest.....30c per dozen
Average.....	43.39c per dozen.

## FEED CONSUMED AND COST.

				Prices ranging from	
Mash	3563 lbs.	\$67.20	\$1.84	to	\$2.00 per cwt.
Wheat	783 lbs.	18.80	1.85	to	2.90 per cwt.
Oats	1602 lbs.	28.15	1.40	to	1.90 per cwt.
Barley	488 lbs.	8.91	1.75	to	2.00 per cwt.
Corn	304 lbs.	7.53	2.25	to	3.00 per cwt.
Beef Scrap	1077 lbs.	45.47	4.00	to	5.50 per cwt.
Green Bone	153 lbs.	6.12	4.00		per cwt.
Buttermilk	2400 lbs.	3.00			.12½ cwt.
Grit	59 lbs.	.88	1.50		per cwt.
Oyster Shell	226 lbs.	3.39	1.50		per cwt.
10,655		\$189.45			

## RECEIPTS AND EXPENDITURES.

Total Receipts .....\$430.31  
 Total Cost ..... 189.45

Profit on eggs sold over cost  
 of feed .....\$240.86

Average Receipts per Hen....\$3.16      Average Receipts per Dozen .43.39c  
 Average Cost per Hen ..... 1.37      Average Cost per Dozen ...19.06c

Average Profit per Hen .....\$1.79      Average Profit per Dozen ..24.33c

## CARE AND MANAGEMENT.

**HOUSING.**—The birds were housed in the same building as those of the former competitions, which was constructed of one thickness of drop-siding on outside studding, lath on the inside of studding and space stuffed with straw. Cotton windows were used entirely with drop curtain in front of roosts. The birds were housed three pens (18 birds) to a section, size 12 ft. x 12 ft.

## RATIONS AND FEEDING.

## Dry Mash Ration.

Bran	25 lbs.	Alfalfa Meal	12½ lbs.
Shorts	25 lbs.	Bone	5 lbs.
Oat Chop	25 lbs.	Charcoal	1 lb.
Barley Chop		12½ lbs.	

This mixture was constantly before the birds in self-feeding hoppers. Beef scrap, oyster shell and grit were also kept before the birds in hoppers.

**Wet Mash.**—A wet mash consisting of the dry mash ration to which boiling water and 15 lbs. of beef scrap was added and shorts to partially dry the mash, was fed three times a week in the evening.

**Grain Rations.**—A light feed of whole oats was given each morning in the litter. During the winter a light feed of wheat, oats or barley and occasionally a little corn was given at noon to insure exercise. Whole wheat was fed in the evening when no mash was given.

**Green Food.**—Throughout the winter months alfalfa and sprouted oats were given as green feed. During the summer months sufficient green feed was produced in the runs.

## WEATHER CONDITIONS.

The weather throughout the competition may be called unusual in many respects. The severe weather of January had a serious effect on the records.

## HEALTH OF THE BIRDS.

The mortality of the birds was much greater than in the previous or second competition. Many of the birds entered did not appear to have the constitution and vitality necessary for heavy egg production.

Two birds died of bursting of blood vessels, two of ovarian trouble, one of ulcerated intestines, and seven of a peculiar disease, the exact nature of which could not be determined. Apparently the cause of death was due to an exceedingly hot spell which seemed to affect only the birds which were broody at that time.

## PROVINCIAL POULTRY PLANT.

The Poultry Plant located on the University Grounds had the most successful year since it was established. A good egg yield was maintained throughout the year and exceptionally good hatches were realized from the eggs set at the plant, and distributed throughout the Province. Not only were the hatches good, but the rearing was also.

Regarding the brooding and rearing the manager reports as follows:

"Our brooding and rearing operations this past year have been very satisfactory, the mortality has been lower than in previous years, and the chicks continued to grow rapidly all season. The mortality during the time the chicks were in the brooder (about six weeks) was just over nine per cent. At one time we placed 122 chicks in the brooder from the same hatch, and at the end of three weeks every chick was strong and healthy.

"Our biggest loss was caused by one section of the brooder not being properly covered at night, containing newly hatched chicks, and during the night the temperature dropped rather low, and eleven chicks were dead in the morning, the result of being too cold and crowding.

"After the chicks were moved into the colony houses most of our losses were caused by hawks, and weasels."

The following is a list of breeds kept and the breeding stock on hand:

	Male	Female
Barred Plymouth Rocks	44	176
Buff Orpingtons	29	99
White Wyandottes	50	116
Rose Comb Rhode Island Reds	3	36
Single Comb Rhode Island Reds	32	61
Single Comb White Leghorns	16	62

During 1916 breeding pens of high class and egg producing qualities were purchased with the object of improving the quality of the birds at the plant. The result of such purchases, associated with the constant selection of the stock for the breeding pens has shown a marked improvement, and the stock now kept is of high class, although no attempt is made to supply exhibition stock to the public, leaving this to the pure-bred breeders of the Province.

Special pens in each variety are being trap-nested with the object of maintaining both laying and standard bred qualities.

The surplus male birds are supplied to the public for breeding purposes at from \$2 to \$5 each, according to quality, and it is encouraging to note that there is a very marked demand for the more expensive birds among the farmers.

The demand for eggs and baby chicks during the season was, as in former years, far in excess of the supply. The following is a summary of the eggs and chicks sent out:

## EGG ORDERS FILLED IN 1917.

White Leghorns	18 orders	2909
Barred Rocks	62 orders	1547
Buff Orpingtons	33 orders	1109
White Wyandottes	25 orders	752
Rose Comb Rhode Island Reds	14 orders	446
Single Comb Rhode Island Reds	13 orders	429
	165 orders	7192 eggs

## CHICK ORDERS FILLED IN 1917.

White Leghorns	13 orders	354
Barrel Rocks	11 orders	275
White Wyandottes	10 orders	250
Single Comb Rhode Island Reds	7 orders	155
Rose Comb Rhode Island Reds	3 orders	75
Buff Orpingtons	2 orders	50
	46 orders	1159 chicks

Respectfully submitted,

A. W. FOLEY,

*Poultry Superintendent.*

## **REPORT OF THE POULTRY MARKETING COMMISSIONER**

SIR,—I have the honor to submit herewith, the Poultry Marketing Commissioner's Report for 1917.

This Branch was created in August, 1917. Aside from the delivery of a short course of lectures to the graduating class in Agriculture at the University of Alberta, the efforts of the Branch thus far have been devoted to the organization and extension of the "Egg Marketing Service" which work is being carried on in close co-operation with the Alberta Poultry Representative of the Dominion Department of Agriculture. The second issue of the "Egg Marketing Service" Memorandum which gives an outline of the work, is given herewith:—

An "Egg Marketing Service" was organized in June of 1917, and during the remaining months of that year 182 shipments of eggs were received and marketed for some twenty odd Farmers' Organizations. The "Egg Marketing Service" continues to offer its services to all farmers in the Province of Alberta under special arrangements made through recognized Agricultural Organizations.

The "Service" is utilizing a warehouse on Eleventh Avenue, in Calgary, as its place of business, and it is hoped to establish a similar station at Edmonton as soon as practicable.

Until the farmers themselves are able to take direct charge of the management of this service, the work will be supervised by officers of the Poultry Divisions of the two Departments of Agriculture (Dominion and Provincial).

At this Service Station, shipments of eggs from any farmers' association will be received, candled, graded and marketed, and the selling price, less operating charges, returned promptly to the shipping associations.

Briefly, the objects of the Egg Marketing Service are as follows:

(a) To provide the farmers of the Province, including those in the most outlying districts, with the best possible marketing facilities:

(b) To provide for the efficient candling and grading of the product, which process is everywhere recognized as being an absolutely essential part of the preparation of this product for market, if the highest prices are to be realized.

(c) To make it possible for the individual farmer to receive a price in proportion to the actual quality of his product.

(d) To ascertain through the examination of the eggs received what farmers are not following completely efficient methods, so as to be able to advise them, and help them, produce a high grade product exclusively.

(e) To stimulate a greater production of poultry and eggs for the benefit of the farmers themselves, as well as for war purposes, believing that this can be accomplished most effectively by providing the farmers



with better marketing facilities, such as the "Egg Marketing Service" will supply; by assembling the farmers' eggs at this service station and under Government inspection, grading them properly before selling; and by giving the farmer the actual returns his product bring when sold, returning to him not one flat price for all eggs as formerly but two prices, each amount worked out on a basis of the quantity of each of the two grades which he has supplied.

(f) To eliminate the tremendous unnecessary loss which the industry now sustains as a consequence of following the present inefficient system of marketing, and to develop an unexcelled reputation for Alberta eggs. Practical experience both in Europe and in Eastern Canada clearly indicates that this improvement can be brought about most effectively by the adoption of the co-operative system of selling and the establishment of the system of quality payment in making returns to individual producers, both of which are provided for in the "Egg Marketing Service."

#### LOCAL SHIPPING ARRANGEMENTS.

1. Any farmers' organization, whether U.F.A., U.F.W.A., Creamery Association, Women's Institute, Agricultural Society, Egg Marketing Association or Poultry Association, will have the privilege of making shipments of eggs to the "Egg Marketing Service."

2. In case of shipments being made by farmers' organizations, other than specially organized egg marketing associations, it is suggested that the shipping arrangements be made and the work supervised by a specially appointed egg marketing committee.

3. This committee should first arrange for one or more collecting depots at the community centre or at the point of shipment, and make the necessary provision for the equitable distribution of the proceeds received from the marketing of the eggs as set out in Schedule "A" attached hereto.

4. In this connection it is suggested that the inclusion in this arrangement of the local storekeeper or storekeepers who have been handling the farmers' eggs up to this time, would result in the more rapid expansion of the movement and make unnecessary any reorganization of present trade channels.

5. It is, therefore, suggested that the committee interview the storekeepers in the village or town, discuss the matter with them, and if possible obtain their support and co-operation, and have them appointed as local shippers for the association.

6. Under this arrangement it is suggested that each storekeeper be allowed one cent per dozen or 30 cents per case for his services.

7. Local shippers should make it a point to send the eggs to the "Egg Marketing Service" Candling Station, as soon as sufficient have accumulated to warrant making a shipment.

8. The "Egg Marketing Service" has adopted a very simple system by which individual farmers' lots may be indicated when using the regular 30 dozen egg cases. This enables the candlers at the Candling Station to make a report on each farmer's eggs and the "Egg Marketing Service" to make remittance on a basis of the quantity of each grade.

The particulars of this system will be supplied immediately an organization has made application for the "Service."

9. Any Agricultural Organization or group of farmers wishing to take advantage of the "Egg Marketing Service" after having elected an Egg Marketing Committee and having made arrangements for shipping should apply to the "Egg Marketing Service," Box 228, Calgary, for a supply of cases, sending the form Schedule "A" filled in and signed with application, when a supply of cases will be forwarded as requested, freight prepaid.

10. All shipments of eggs should be addressed to the "Egg Marketing Service," Calgary, freight collect.

#### WHAT IS ASKED OF FARMERS MAKING USE OF "EGG MARKETING SERVICE."

This service is being provided as a result of numerous requests received from farmers' organizations and egg-producers throughout the Province of Alberta.

It is being organized, and in its initial stages directed by the two Departments of Agriculture jointly, with the understanding that the associations and producers utilizing the service will do their part towards the accomplishment of the complete success of the undertaking.

The duty of the producer in this connection is to observe certain simple but very important precautions respecting the care of the eggs on the farm.

The producer must make every possible effort to supply clean, fresh eggs.

In the accomplishment of this the following points are of the utmost importance:

##### NESTS.

1. Provide one nest for every six hens.
2. Keep the nests covered.
3. Keep the nests well supplied with clean, dry straw or other nesting material.

##### HEN-HOUSE.

1. Keep the hen-house clean. If the hen-house is not clean and inviting the hens are liable to steal their nests.
2. Provide at all times a liberal supply (from 9 inches to 1 foot) of clean dry scratching material.
3. On wet mornings, no matter how clean the hen-house may be, throw down a small quantity of new straw and a handful of grain. This will induce the hens on entering the hen-house with muddy feet to scratch and clean their feet before entering the nests. These precautions will reduce the quantity of dirty eggs to such a minimum that they can be

used for immediate home consumption, after being washed; but eggs intended for market must never be washed, as washed eggs deteriorate very rapidly and are also quite useless for storage purposes.

#### Eggs.

1. Gather the eggs once daily in cool weather.
2. Gather them twice daily in hot, damp, or frosty weather, or when broody hens are bothersome.
3. Keep the eggs, until delivered to the shipper of the Marketing Association, down cellar, in the cellar-way, or in some equally cool place (if possible below 60 deg. F.)—Not in a pantry, just off the hot kitchen.
4. The eggs for market should be delivered to the local shipper regularly, if possible twice weekly, but not less frequently than once per week.
5. When a stolen nest is found, candle the eggs and market only those that are good.

Follow these simple rules and you will produce the maximum quantity of clean, strictly fresh, high grade eggs.

Further information will be gladly supplied on application either to T. A. Benson, Dominion Poultry Representative, 131 Tegler Building, Edmonton, or J. H. Hare, Alberta Poultry Marketing Commissioner, 23 Crown Building, Calgary.

#### SCHEDULE "A."

This is to certify that the Egg Marketing Committee of the .....  
(Organization)

has appointed .....  
as local shipper... to receive eggs from egg-producers in the vicinity of.....for shipment to the  
"Egg Marketing Service" at Calgary, and that the said local shipper...  
is authorized to receive from said "Egg Marketing Service" the net proceeds realized from the sale of the eggs received, for distribution according to the plan set out in the "Egg Marketing Service" Memorandum, dated January 1, 1918.

Dated the.....day of.....19...

(Signed).....

*Chairman,*

Egg Marketing Committee.

#### EGG MARKETING SERVICE—1917 REPORT.

The Egg Marketing Service opened a receiving, candling and grading warehouse in Calgary the first week in June, 1917.

During the month of June regular shipments of eggs were received from the following points in Alberta:

Nanton, Consort, Cayley, Blackie, High River, Carstairs, Three Hills, Aldersyde, Parkland.

During the month of July regular shipments were received from the following additional points:

Langdon, Jenner, Seven Persons.

In August, these additional points were added to the list:

Dalemead, Namaka, Gadsby, Brant, Cheadle.

In September one point was added:

Hespero.

In October four points were added:

Cluny, Sylvan Lake, Sunnyslope, Eckville.

A number of additional points have since asked for the privilege of utilizing the Service, but no shipments of eggs have been received owing to the almost complete cessation of production.

From the beginning, the principal of quality payment has been strictly adhered to. The eggs upon receipt are graded according to the Canadian Standards and returns are made to the farmers on a basis of two grades, making the division during the greater part of the time between No. Ones and No. Twos.

In nearly all cases shipping arrangements at the various country points were made by a special Egg Marketing Committee, appointed by one of the strongest local farmers' organizations. Organizations of several kinds have taken advantage of the "Egg Marketing Service." These include U.F.A., Local Associations, Farmers' Co-operative Stores, Women's Institutes, United Farm Women's Associations, Agricultural Societies and a few regularly-formed Poultry Marketing Associations.

The eggs are carefully candled and graded, immediately they arrive at the grading warehouse. They are then carefully packed in clean new cases with new fillers and offered to the trade for sale. All interested produce buyers are invited to make bids. The eggs are sold to the highest bidder.

In instances when buyers outside of the Province quote no higher price than that quoted by local buyers, preference is given to local dealers.

# EGG MARKETING SERVICE

Statement of eggs received, graded and marketed, June 1 to December 31, 1917

Shipping Points	Ship-ments	Cases	Total Eggs Rec. Doz.	Grading June 1 to July 26			Grading July 27, to December 31.		Bad	Amount
				Extras Doz.	Ones&Twos Doz.	Cracks & Broken Doz.	Extras & Ones Doz.	Twos & (Cracks Doz.		
Aldersyde	9	17	510-	137-10	182-7	7-10	108-8	70-2	2 11	\$142.76
Blackie	37	83	2447-2	570-7	749 9	32 7	827-5	256-3	10 7	735.46
Brant	2	4	120-	...	...	...	75-11	40-	4 1	38.94
Carstairs	25	71	2088-3	279 7	651-9	23-9	850-1	273-8	9 5	626.49
Cayley	14	42	1259 10	388	622-4	25-1	121 11	88	14 6	342.28
Cheadle	2	2	60-	...	...	...	52 1	7 11	...	20.69
Consort	25	38	1101-6	311 2	309-11	27-7	338-7	106-11	7 4	343.39
Dalemead	2	2	60-	...	...	...	34	26	...	17.31
Eckville & Gilby	1	2	60-	...	...	...	15 5	41 5	3 2	21.64
Gadsby	7	54	1618-4	...	...	...	1040-8	553-10	23-10	562.16
Hespero	4	8	239-11	...	...	...	159-8	78-4	1 11	89.73
High River	5	6	180-	53 8	92-4	3-4	22 2	7 10	8	49.53
Langdon (H)	8	18	536-7	31 1	255-5	9-10	172-10	66-	1 5	150.90
Langdon (W)	1	5	149-9	43-11	102 3	3 7	...	...	...	39.88
Jenner	7	20	593 3	28 5	335 10	12 3	148-4	58-5	10	168.71
Milo	1	1	30-	...	...	...	12-	9-	9	8.34
Namaka	4	6	179-6	...	...	...	148 3	31 3	...	49.30
Nanton	11	39	1155-6	522 10	370-7	24 4	186-7	46-5	4 9	328.50
Parkland	2	7	210-	51 3	151-11	3 1	...	...	3 6	78.68
Seven Persons	5	7	209-9	...	56 5	...	79-10	69-2	4 4	59.91
Sylvan Lake	2	5	144-	...	...	...	116-9	25-9	1 6	60.25
Sunnyslope	1	5	150-	...	...	...	134-9	15-	3	62.28
Three Hills	7	8	223-	37 11	117-4	6-11	46-1	13-11	10	60.88
	182	450	13326-4	2456 3	3998-5	180-5	4682-0	1895-3	114 0	\$4058.01

## THE GRADING.

When grading the eggs for sale the "Egg Marketing Service" has made it a rule to follow what is called the Canadian Standards, a classification proposed by a committee consisting of Professor W. R. Graham, of the Agricultural College, Guelph, an officer of the Dominion Live Stock Branch and a member of the Produce Trade. This standard was adopted by the Third Annual Convention of the Canadian Produce Association.

Although the eggs are sold on this grading, which consists of Extras, No. Ones and No. Twos, it has not as yet been found practicable to make returns to individual farmers each week on a basis of three prices. The work involves too much detail. The candler's report, as the illustration indicates, shows two of the grades made into one. Thus, the detail, which will be apparent from an examination of the candler's report, is reduced sufficiently to make "quality payment" practicable. The dividing line for the earlier part of the season was made between Extras and No. Ones and really ought to have remained there as a No. One egg is a distinctly stale egg and does not by any means approximate the quality of an Extra. But in the summer and fall months Extras became so scarce and No. Ones and No. Twos so plentiful that it was thought necessary to change the dividing line and place it between No. Ones and No. Twos.

## DEFINITION OF GRADES.

Extras.—Eggs of good size, weighing at least 24 ozs. to the dozen or 45 lbs. net to the 30-dozen case; clean; sound in shell; air cell less than three-eighths of an inch in depth; white of egg to be firm and yolk slightly visible.

No. Ones.—Eggs weighing at least 23 ozs. to the dozen or 43 lbs. net to the 30-dozen case; clean; sound in shell; air cells less than half an inch depth; white of egg to be reasonably firm; yolk may be quite visible but mobile, not stuck to the shell or seriously out of place; air cell not necessarily stationary.

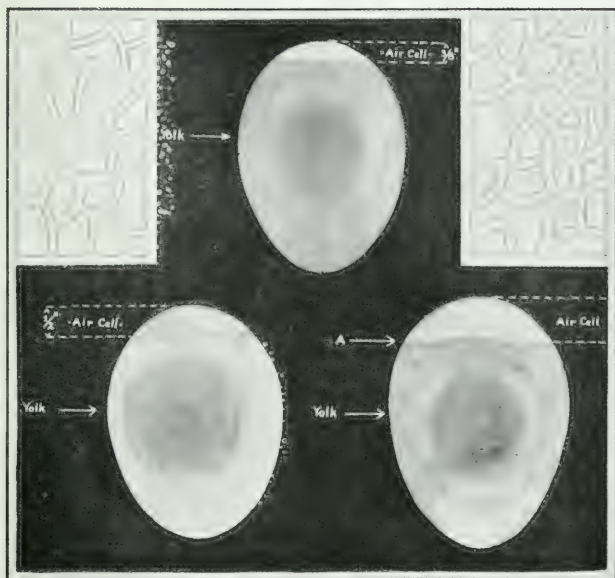
No. Twos.—Eggs clean; sound in shell; may contain weak watery eggs and eggs with heavy yolks, and all other eggs sound in shell and fit for food.

## IDENTIFICATION OF LOTS.

In order that the principle of "quality payment" may reach the farmer it is necessary for the local Association shipper when packing the eggs for shipment to adopt some means of indicating in the egg cases the location and quantity of each farmer's lot. When this is done, the egg candlers at the Central Candling Station are able to make a detailed report as to the grading of each lot.

To accomplish this, what is called an Egg Case Plan is used. This is a card on which are printed ten large squares representing the ten fillers in the 30-dozen egg case. Each of the ten large squares is again divided into thirty-six or three dozen small squares, this number corresponding exactly with the number of eggs which each filler will contain.

This plan, when properly marked, indicates the precise quantity and location of each producer's lot of eggs in the standard 30-dozen egg case.



THE PROGRESS OF DETERIORATION

By this system, the candler is able to identify each farmer's lot in the egg case, candle it separately, and report upon it as to the number of eggs falling into each grade. Each grade may be kept in a separate case as the candling proceeds, and when a lot is finished, the number falling into each grade may be counted, thus obviating the necessity, as with the stamping system, of examining each egg individually.

Shippers are asked to follow these directions when packing the eggs and marking the case plan:

1. Mark the end of the egg case; one "End No. 1," the other "End No. 2."

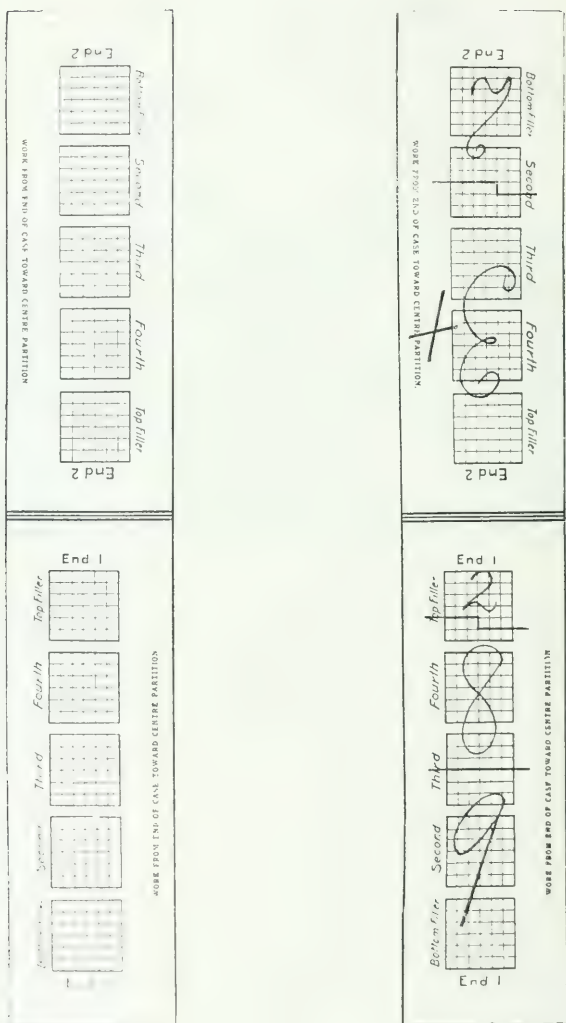
2. Fasten the case plan with light 2 oz. tacks to the inside of the cover of the case, running it lengthwise with the cover.

3. Commence filling with End No. 1.

4. When that filler is reached which is to contain the last few eggs of any particular lot, care should be taken always to commence filling at the end of the case and work toward the centre partition.

5. After the first lot of eggs has been placed in End No. 1 of the case, note how many fillers are filled. If the last is not completely filled, note what part. Then on the "Case Plan" column, under which is marked

## NATURAL CANE FILL





"End No. 1," and on that square corresponding with the filler containing the topmost eggs, draw a line indicating the limit to which that lot has reached.

If, however, the first lot completely fills End No. 1, and runs out in End No. 2, place the farmer's number or name on column marked "End No. 1." Then on column under which is marked "End No. 2," draw the line at the proper place, again writing in the farmer's name or number. Then resume filling with second, third, and other lots, each time repeating the process.

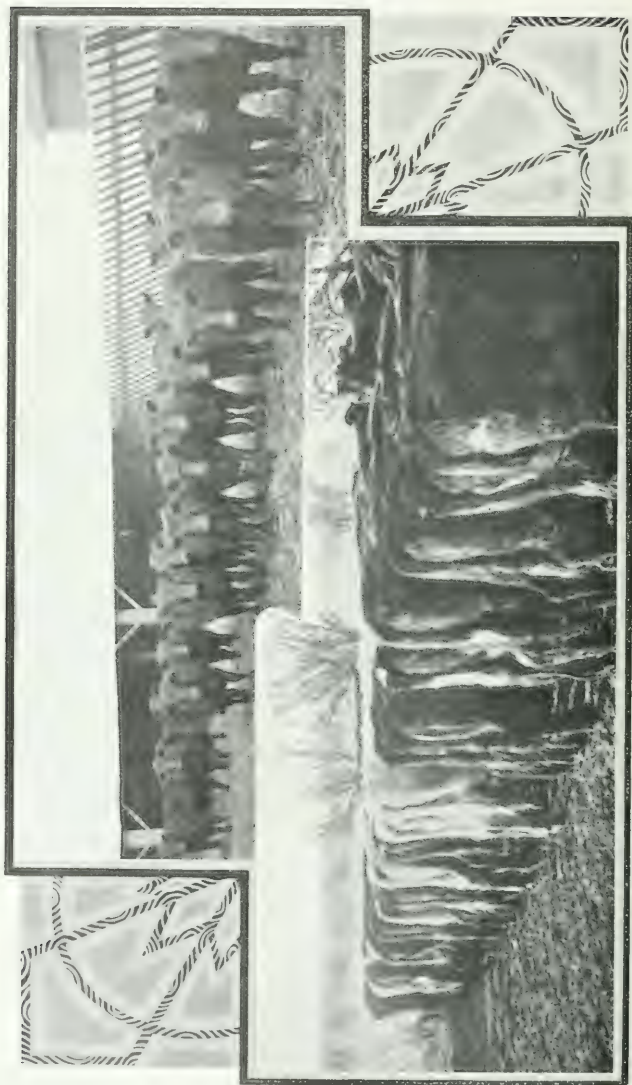
6. Fill each case completely as the work proceeds.

7. If any one farmer has eggs in two cases, place a plus sign on the outside margin opposite his number on both plans.

Respectfully submitted,

J. H. HARE,

*Poultry Marketing Commissioner.*



ALBERTA "JEEP" CRITTERS

## REPORT OF THE RECORDER OF BRANDS

SIR,—I have the honor to submit the following report on the work of this branch of your Department for the year 1917:

During the year 1,839 horse and 3,370 cattle brands were allotted and recorded to their respective owners, while 531 transfers and 33 changes were duly registered. Certified extracts of brands numbered 19, while searches and strays number 654, being a total of 6,516 transactions.

Compared with the previous year (1916) these figures show an increase of 336 horse and 532 cattle brands, 69 transfers, five changes and five extracts, while searches and strays decreased by 63, being a total increase for the ordinary work of the year, of 884 transactions.

The following table shows the different transactions which have taken place since separate records for the Province have been kept:

Year	Horse	Cattle	Trans.	Changes	Strays & Searches
1906 .....	1361	1894	384	38	73
1907 .....	1030	1230	430	28	73
1908 .....	1103	1225	421	29	292
1909 .....	1308	1326	430	33	783
1910 .....	1891	1672	524	34	1218
1911 .....	1538	1280	362	32	1408
1912 .....	1545	1542	374	16	1655
1913 .....	1471	2059	419	11	1795
1914 .....	1764	2629	395	18	1932
1915 .....	1350	1899	743	27	1372
1916 .....	1503	2838	462	28	801
1917 .....	1839	3370	531	33	673
Average 12 years ...	1475	1914	456	27	1006

From the above statement it will be seen that the horse brands issued during the year, exceed that of the average of the past twelve years by 361, while the cattle brands exceeded the average by 1,456. With the exception of the year 1910, the past year's horse brands exceed those of any previous year. Notwithstanding the large increase in cattle brands, reported in 1916, this year has formed a new record, exceeding those of previous year by 532.

The very large demand for horse and cattle brands during the past three years, while stimulated by the enhanced value of these animals, is, undoubtedly, caused by the very prosperous condition of the farming community. Good crops and very high prices have enabled the farmers to increase their capital and in the large majority of cases, they are investing in more land and taking up mixed farming more and more.

If one takes the number of new owners of cattle brands granted during the past two years and allows only a small average herd of, say, ten head per brand, this gives us a herd of over 62,000 cattle, which at an

average price of, say, \$60.00 per head, makes a value of over \$3,720,000 worth of cattle added to the live stock industry of Alberta in that period. It should also be borne in mind that this does not take into consideration any of the cattle purchased during the past year, under the provisions of the new "Cow Bill," nor those bought by owners already owning brands. These facts show the enormous possibilities of the Province of Alberta as a live stock country and give but a faint idea of what the probable value of the live stock industry is likely to amount to in the next five or ten years.

During the year there were 9,468 renewal notices issued to recorded owners of brands, which required to be continued on or before December 31, and no fewer than 4,161 of that number had been applied for and renewed.

The following statement shows the number of renewals and reallotments of brands to old owners, issued since this was instituted in 1915:

	1915	1916	1917
Brands renewed during the year 1915 .....	7805		
Brands renewed during the year 1916 .....		2869	
Brands reallotted during the year 1916 .....	510		
Brands renewed during the year 1917 .....		519	416
Brands reallotted during the year 1917 .....	431	120	
Total number of brands renewed and reallotted ...	8746	3508	416
Percentage of renewals .....	38%	49%	44%

Of the brands issued prior to January 1, 1907, and which should have been renewed on or before December 31, 1915, it will be seen that no fewer than 941 have been reallotted to old owners, during the years 1916 and 1917, and these now show the percentage of renewals for that year as 38 per cent. The brands requiring to be renewed during 1916 have had 120 reallotted to previous owners and increase the number of renewals for that year to 49 per cent. It is natural to expect that the nearer we approach the date of original issue, the higher will be the rate of renewals. Last year the renewals were 40 per cent. of the number issued, while the year under review is 44 per cent.

A meeting of the Brand Commissioners was held on June 14, at which a new series of cattle brands was approved, but owing to the very large number of new applicants during the year, a further series will be required and it will be necessary to hold another meeting some time in the early spring.

The number of letters received during the year was 15,698, while the number of documents despatched was 44,266, or a total of 59,964.

I have the honor to be,

Yours obediently,

JAS. WILSON,

*Recorder of Brands.*

## REPORT OF CHIEF GAME AND FIRE GUARDIAN

SIR,—I have the honor to submit herewith my Twelfth Annual Report in connection with the enforcement of *The Game Act*, and *The Prairie Fires Ordinance*, for the year 1917.

### I.—PROTECTION OF GAME.

With respect to the supply of game in the Province of Alberta during the year 1917, I may say that I have no reason to think that the supply is less than it was in 1916. Ideal conditions existed during the months of May and June for the young animals and birds, and in the case of the prairie chicken (sharp-tailed grouse) a very noticeable increase in their number was noted during the fall, and there appeared to be an increased supply of wild ducks, more especially in the eastern half of the Province, and it was possible for sportsmen, without any great effort, to secure the bag limit.

Big game, including deer, moose, sheep and goat are equally as plentiful as in 1916.

#### GAME BIRDS.

The usual fine weather in the fall of the year, especially during the month of September, facilitated the hunting of water fowl, and in all sections of the Province where hunters usually resort for duck shooting there was possibly a better supply of these birds than for some years. This may be accounted for by the favorable breeding season and owing to the fact that the shooting of game birds of any kind was prohibited in the spring of the year. The birds arriving from the south were consequently not disturbed and nested in the southern section of the Province, whereas in former seasons the spring shooting of geese disturbed them and drove them to the north to other breeding grounds. There were few spring fires and little or no high water, the hatching season was therefore, almost perfect. Some destruction of course was caused by the prairie wolf, which owing to the scarcity of rabbits has been compelled to prey on game.

#### BIG GAME.

I must again report as in 1916, an unfavorable hunting season for big game animals. The month of November was exceptionally fine with practically no snow fall; hunters therefore found great difficulty in tracking game, in the event of their having wounded it. They found it difficult to get near the animals owing to the noise which was unavoidable in travelling through the timber. Early in December, however, there was a nice fall of snow, which resulted in those who hunted during that period (from December 1 to December 14) securing a reasonable supply of moose. It is not expected that there have been more big game animals killed than in 1916; it is of course impossible to say as to how many big game animals were killed owing to the delay on the part of many persons

returning their licenses showing big game animals killed by them. Below is a statement showing the number of big game animals killed each year from 1907 to 1917 inclusive:

	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917
Antelope .....	49	45	89	126	101	105	119	..	..	..	..
Moose .....	14	37	86	184	305	425	865	1335	1116	849	1026
Caribou .....	..	..	5	8	30	40	56	78	34	28	43
Mountain Sheep ...	..	..	40	54	49	90	65	78	110	83	57
Mountain Goat ....	..	..	38	46	56	58	42	61	40	26	37
Elk .....	..	..	..	7	..	..	..	..	1	..	..
Deer .....	59	125	299	540	619	768	903	1388	692	560	705

#### FUR-BEARING ANIMALS.

Mink, fisher and marten vary little in numbers from previous years.

Muskrat will in all probability show an increase and from indications the price before the close of the season will be extremely high.

Foxes still remain less plentiful than former years, but will undoubtedly increase on the return of the rabbits.

Beaver are still increasing in the southern half of the Province, and many applications are being received for permits to trap these animals or destroy the dams where they are causing damage by cutting trees and brush, which farmers and ranchers depend on for shelter for their stock. The dams result in the raising of the water in the creeks until they overflow their banks. During the year there were 76 permits issued authorizing the holders to trap these animals, the result being that 386 pelts were taken and have been inspected by our officers and stamped, the owner then has the right to dispose of them as he may see fit.

#### SALE OF GAME.

As in previous years, a number of Game Dealers and Market Hunters' Licenses were issued; the result of the operations of Game Dealers and Market Hunters show that there were only about one-third of the number of wild ducks marketed under Market Hunter's License as in 1916, and less than half the number were trafficked in by Game Dealers. This will be accounted for by referring to the amendments to Sub-section 1 of Section 5 of the Act, which places a bag limit of 200 birds for the season.

The following table shows the number of game birds and big game animals marketed, as shown by returns of Game Dealers and Market Hunters from 1913 to 1917 inclusive:

	Market Hunters					Game Dealers				
	1913	1914	1915	1916	1917	1913	1914	1915	1916	1917
Deer .....	7	14	5	..	2	6	18	6	1	2
Moose .....	43	34	17	10	15	23	39	20	17	13
Caribou .....	3	1	..	1	..	3	..	..	1	..
Geese .....	56	25	..	29	38	76	..	..	..	..
Swans .....	..	..	..	..	..	1	..	..	..	..
Ducks .....	15,339	3,892	7,394	9,973	3,391	16,564	3,497	5,940	11,481	5,082
M't'n Sheep ..	..	2	..	..	2	..	..	..	1	..

## BRANDING GAME HEADS.

Section 11 of the Act requiring the branding of game heads before buying or selling shows the following results:

	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917
Mountain Sheep ...	216	2	9	11	2	6	4	4	15	8	6
Mountain Goat ....	62	..	1	1	1	2	2	2	..	..	..
Elk .....	41	3	4	2	2	1	..	..	1	3	..
Moose .....	39	29	33	32	40	40	48	42	30	22	10
Caribou .....	16	6	6	2	3	3	2	5	1	1	..
Deer .....	142	15	26	26	40	10	21	32	15	12	15
Antelope .....	95	5	..	3	3	3	3	10			

## LICENSES AND PERMITS.

The Great War, which is still in progress, has necessitated sending reinforcements from time to time. This has affected the sale of hunting licenses each year since 1914. There was, however, an increase of 25 per cent. in the number of General Game Licenses sold in 1917, but a decrease of more than 50 per cent. in the number of non-residents' Bird Game Licenses. Non-resident trappers remained about the same as in 1916. A slight increase in the number of Residents' Big Game Licenses. Resident Farmers' Big Game Licenses show an increase of some 500, while Residents' Bird Game Licenses are practically the same as last year. There were fewer Game Dealers' and Market Hunters' Licenses issued. An increase in the number of Camp Helpers' Licenses; a slight decrease in the number of Guides' Licenses. An increase in the number of Permits to Export; a decrease in the number of Branding Permits. The revenue from fines only amounted to about half of that for 1916.

The following table shows the number of licenses and permits sold each year from 1907 to 1917 inclusive:

	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917
Gen. Game Licenses	4	7	17	24	24	28	32	25	32	32	40
Bird Game Licenses	..	..	3	3	67	67	68	34	49	60	24
Residents' Big Game	446	529	1162	1937	813	1043	1378	1319	912	714	833
Res. Far. Big Game	..	..	..	..	2118	2917	4260	5982	5015	3439	3979
Res. Bird Game ...	..	..	..	..	7452	9519	13021	9674	7493	6549	6477
Guides' Licenses ...	6	3	7	8	13	21	24	14	16	18	16
Camp Helpers' ....	1	1	1	4	5	5	5	1	6	1	11
Game Dealers' ....	12	23	39	30	16	26	23	39	29	34	26
Market Hunters' ..	..	..	..	..	60	75	169	125	52	58	54
Permits to Export ..	15	17	19	35	24	27	38	120	121	57	64
Permits to Collect ..	6	6	16	23	7	7	2	561	5	2	
Trappers' Licenses .	6	4	1	10	14	26	46	..	2	6	5

## CONVICTIONS AND FINES.

The different offences are classified as follows and cover the years 1908 to 1917 inclusive:

	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917
For Hunting on Sunday .	12	4	4	9	..	7	19	7	9	18
For Hunting in Close Season .....	11	36	29	23	6	11	21	15	7	10
Buying & Selling Unbranded Heads .....	8	6	3	1	..	2	1	2	5	..
Hunting Without License	7	6	14	17	1	6	20	15	22	1
Taking Females .....	..	..	..	4	..	2	5	10	7	3
Selling Without a License	7	7	..	1	2	..	..	6	8	1
Miscellaneous Offences .	4	2	9	7	71	93	52	33	22	16

## REVENUE FROM GAME.

I am compelled to report a larger deficit than for the year 1916. Conditions are such in sporting and hunting circles that we cannot expect a large increase in sale of game licenses and permits until after the close of the war. If all residents of the Province are required to purchase bird game licenses, there would be a large increase in revenue. Other sources of revenue which could be provided for are licenses for fur dealers and taxidermists, cold storage plants, export fee on skins of big game animals, and the licensing of game or fur farms.

The following table will show the different kinds of licenses and permits issued and the revenue derived therefrom, as well as the expenditure for game protection, for the years 1906 to 1917 inclusive:



## REVENUE FROM GAME MONEY COLLECTED

	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917
General Game	%	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Bird Game		93.00	175.00	425.00	600.00	600.00	700.00	800.00	625.00	800.00	800.00	1,000.00
Trappers				45.00	45.00	335.00	335.00	310.00	170.00	245.00	200.00	120.00
Res. Elk Game		40.00	40.00	10.00	100.00	140.00	260.00	400.00	.....	50.00	150.00	125.00
Res. Far. Big G.		115.00	1,322.50	2,905.00	4,992.50	2,932.50	2,607.50	3,445.00	3,297.50	2,280.00	1,735.00	2,082.50
Res. Bird Game						2,118.00	2,917.00	4,250.00	5,982.00	5,015.00	3,439.00	3,979.00
Guides						9,315.00	11,898.00	16,276.25	21,766.50	16,820.25	14,735.25	14,573.25
Camp Helpers		50.00	15.00	35.00	40.00	65.00	105.00	120.00	70.00	10.00	45.00	40.00
Game Dealers		2.50	2.50	2.50	10.00	25.00	25.00	25.00	5.00	15.00	2.50	27.50
Market Hunters		120.00	220.00	300.00	300.00	150.00	250.00	250.00	300.00	250.00	310.00	260.00
Fur to Export		171.00	92.00	50.00	76.00	300.00	375.00	815.00	625.00	260.00	200.00	270.00
Branding		65.00	50.00	55.00	45.00	41.00	65.00	78.50	13,875.00	3,765.00	151.50	507.00
Confiscated G.		2,158.00	240.00	314.00	295.00	325.00	35.00	10.00	2,905.00	25.00	10.00	.....
Fines		154.00	337.50	447.50	328.00	700.00	45.00	20.00	343.00	265.00	194.00	110.00
									2,920.66	7.45	40.00	15.00
									1,759.93	1,417.78	1,400.90	756.82
Total Revenue	\$ 145.00	\$ 3,948.50	\$ 2,501.50	\$ 4,793.50	\$ 6,940.25	\$16,219.50	\$29,734.50	\$28,905.28	\$51,628.50	\$31,335.49	\$23,983.15	\$23,868.07
Total Exp	\$ 1,929.69	\$ 2,216.62	\$ 1,323.60	\$ 3,579.50	\$ 4,766.20	\$ 8,955.00	\$14,042.17	\$19,164.51	\$30,845.08	\$29,688.86	\$26,819.44	\$29,606.51
Surplus	.....	\$ 1,731.88	.....	.....	\$ 2,174.05	\$ 7,284.50	\$ 6,692.33	\$ 9,740.77	\$23,783.51	\$ 1,646.63	.....	.....
Deficit	\$ 1,784.69		\$ 1,819.10	\$ 786.40							\$ 2,830.29	\$ 3,740.44

Surplus over and above expenditure for years 1906 to 1917, \$40,086.75.



INTERIOR OF GAME CAR ON DEMONSTRATION TRAIN.

The following licenses were issued to Treaty Indians free of charge on the strength of a certificate from their Agent, as provided for by Section 19 (c) of *The Game Act*:

Resident Farmers' Big Game Licenses ..... 61

While dealing with Indians I may say that a special effort was made to get in touch with the members of several of the tribes and for this purpose our Mr. Tomkins, who is thoroughly acquainted with the habits of Indians as well as their language, visited a number of reserves and explained to them the requirements of *The Game Act*, and from reports received I believe that his efforts met with considerable success as there were fewer reports than usual with respect to depredations by Indians.

#### DEMONSTRATION TRAIN.

As in 1915 and 1916 a Demonstration Train was fitted up, one of the exhibits being Natural History specimens in the form of mounted animals and birds from the Provincial Museum. A passenger coach was secured, and was found to answer the purpose much better than baggage coaches, which were used in previous years. Upwards of fifteen thousand people passed through the car and the exhibit met with very favorable comment. Very few of those who passed through the car realized that we possess such a wealth of animal and bird life.

Copies of the game regulations were distributed, also a leaflet entitled *Birds of Alberta*.

Respectfully submitted,

BENJ. LAWTON,

*Chief Game Guardian.*

#### MUSEUM.

The vote of \$500.00 made by the Legislature last session was expended in securing specimens of birds found in Alberta, also a few game heads. Some of the birds were purchased as mounted specimens, others were obtained by the writer and by Mr. Dan Patton, of Midnapore, who donated a number of specimens, the only cost to the Department for these was for mounting them. Mr. Patton donated the following specimens:

2 Eared Grebes.	1 Widgeon.
2 Wilson Phalarope.	1 Lesser Yellowlegs.
1 Bank Swallow.	3 Semipalmated Sandpipers.
1 Tree Swallow.	2 King Birds.
1 Olive-backed Thrush.	1 Pectoral Sandpiper
2 Sora Rails.	2 Horned Larks.
2 Black Terns.	2 Tit Larks.
2 Spotted Sandpipers.	1 Silver-haired Bat.
1 Mountain Blue Bird.	1 Mouse.
2 Lapland Longspurs.	2 Pygmy Shrews.
1 Canada Jay (Whiskey Jack).	2 Dippers, or Water Ouzels.

In addition to these the following were added to the collection:

1 Holboel Grebe.	1 Solitary Sandpiper.
1 Belted Kingfisher.	1 Northern Phalarope.
1 Clay-colored Sparrow.	1 Northern Phalarope (Fall Plumage).
1 Redstart.	2 Red-breasted Mergansers.
1 Buffalo Bird.	2 Yellow Warblers.
1 Pair Rose-breasted Grosbeak.	1 Western Yellow-throat.
1 Red-breasted Nuthatch.	2 Pine Grosbeaks.
1 Phoebe.	1 Cat Bird.
1 Killdeer.	2 Song Sparrows.
1 Baird Sandpiper.	1 Tree Sparrow.
1 Saw-Whet Owl.	

1 Silver Haired Bat.	1 Hairy Woodpecker.
1 Pair Richardson Gophers.	1 Red Squirrel.
1 Franklin's Gopher.	1 Grizzly Bear Rug.
1 Pair Upland Plovers.	1 Marten.
1 Song Sparrow.	1 Black and White Warbler.
1 Yellow Warbler.	1 Palm Warbler.
1 Junco.	1 Leconte Sparrow.
1 Olive-backed Thrush.	1 Western Yellow-throat.
1 Louisiana Tanager.	1 Western Woodpeewee.
1 Red-eyed Vireo.	1 Turnstone.
1 Lencosticte.	1 Pair Sanderling.
1 American Merganser.	1 Greater Yellow-legs.
1 Cinnamon Teal.	1 White-footed Mouse.
1 Richardson Grouse.	1 Sharp-tailed Grouse.
1 Pair Striped Gophers.	1 English Sparrow.
1 Pair Evening Grosbeaks.	1 Raven.
1 Pair Goldfinch.	1 Hooded Merganser.
1 Purple Finch.	1 Spotted Sandpiper.
1 Ruby-throated Humming Bird.	1 Northern Phalarope.
1 Pair Least Fly-catchers.	1 Bohemian Waxwing.
1 Pair Knot.	1 Baltimore Oriole.
1 Buffle-breasted Sandpiper.	1 House Wren.
1 Black-bellied Plover.	1 Pipit.
1 Semipalmated Sandpiper.	1 Brewer Blackbird.
1 Long-tailed Duck.	1 Pair Lincoln Sparrows.
1 Snowy Owl.	1 Clay-colored Sparrow.
1 Rough-legged Hawk.	1 Vesper Sparrow.
1 Golden Eye Duck.	1 White-throated.
1 Arctic Three-toed Woodpecker.	1 Holboel Grebe.
1 Savannah Sparrow.	2 Purple Martins.

The space available for museum specimens is becoming more crowded each year. The exhibit prepared for the Demonstration Train was taken from specimens on hand, and handled with the greatest possible care. This was the third occasion on which an exhibit was fitted up for this train. It was greatly appreciated by those who saw it and considered the best thing of its kind ever attempted.

Respectfully submitted,

BENJ. LAWTON,

*Chief Game Guardian.*

#### WOLF BOUNTY.

The legislature at its last session amended the *Wolf Bounty Act* and made provision for the payment of bounty on female prairie wolves killed between the first day of May and the first day of September. This bounty is at the rate of \$2 for each adult animal killed between the above dates. Provision was also made for the payment of \$20 on all female timber wolves killed in Alberta, at any season of the year. The bounty on male animals is \$10. The bounty previously payable on timber wolves was \$10 irrespective of sex.

During the year bounty was paid on eight female timber wolves, 65 male timber wolves, 44 wolf pups and 107 female prairie wolves.

Respectfully submitted,

BENJ. LAWTON,

*Chief Wolf Bounty Inspector.*

## II.—PREVENTION OF PRAIRIE FIRES.

I regret that the good record of 1916, with respect to fires, was not maintained during 1917, there being several very destructive fires in the northern part of the Province, more particularly in the Peace River and Grande Prairie districts. Beyond the Peace River the fires in the fall of the year caused considerable loss to settlers. The Provincial Police did some excellent work in extinguishing these fires and securing convictions against parties responsible for kindling them.

It would be well, I think, to have amendments made to *The Prairie Fires Ordinance* making provision for permit areas in the vicinity of timber lands and forests. This should at certain seasons of the year require persons who find it necessary to kindle fires for the clearing of land or the destruction of rubbish or brush to obtain permits before doing so.

It is very important that our timber lands should be protected from ravages by fire and more especially that portion of the Province on the eastern slope of the mountains. The destruction of the timber in the foot hills on the eastern slope of the mountains will, to a great extent, if not entirely, deprive the prairie and the lands to the east of the mountains of their water supply. The rivers of Alberta all have their source in the mountains, and are fed by the snow melting. In the event of the timber being destroyed, the snow would melt very rapidly and run off so quickly that it would cause the rivers to overflow their banks, while later in the season the rivers would go dry, unless in the case of those which are fed by lakes and springs.

As in previous years two of our salaried fire guardians spent considerable time inspecting railway fire guards and the railway companies' right of way, to see that the regulations relating to the clearing the right of way of inflammable material and the construction of fire guards provided for by the Board of Railway Commissioners, have been complied with.

The convictions reported and the total penalties imposed for the year 1907 to 1917, inclusive, are as follows:

Year	No. of Convictions		Average Fine
	reported	Total	
1907	33	\$ 741.00	\$22.45
1908	105	1,570.00	14.95
1909	94	1,796.00	19.10
1910	247	4,247.38	17.20
1911	33	565.00	18.25
1912	56	1,008.00	18.00
1913	48	948.75	20.52
1914	89	1,395.93	15.68
1915	39	681.16	17.47
1916	113	2,121.19	18.77
1917	35	888.00	25.37

Respectfully submitted,

BENJ. LAWTON,

*Chief Fire Guardian.*

## REPORT OF THE CROP STATISTICIAN

SIR.—I beg to submit herewith the report of weather and crop conditions together with statistical tables relating to temperatures and precipitation and the yields of the different kinds of grain grown in the Province:

### MONTHLY WEATHER REPORT FOR 1917.

#### *January.*

Edmonton.—Total hours of bright sunshine, 54.3. The month opened mild, clouds claiming a high percentage throughout; an unusually heavy snowfall of over 18 inches was recorded. Farmers well pleased with the snow as it is keeping the ground in good condition for early crops. River temperature 31 degrees. Ice in perfect condition; traffic heavy over same; sleighing excellent. Month ended with steady extreme cold, northwest winds prevailing. Snow in open 8 inches; 18 to 20 inches in drifts. Calgary.—Three inches of snow on the ground. Heavy winds first part of the month, extremely cold last ten days. Medicine Hat.—About six inches of snow on the ground, very much crusted by chinook in early part of the month, difficult for range stock to get food in some places. Most of the ranches are well prepared and cattle are not suffering much. On the whole the weather for the month was fine, except the last four days.

#### *February.*

Edmonton.—Month was characterized by low temperatures, strong winds, high percentage of cloud, and intermittent heavy snowfalls. Bright sunshine, 93 hours, was much below average. Sleighing very good and safe on river. Stock in splendid condition in the open; depth of snow on ground four inches. Calgary.—Three inches of snow on ground; cold month with strong winds. Medicine Hat.—Weather for month disagreeable and cloudy, yet not a heavy snowfall. Stock doing fairly well except in one or two localities where snow is considerably crusted. Roads in good condition except for a few days owing to chinook. Farmers still hauling in grain. Sales of farm machinery are reported large. It is anticipated a large acreage will be put in crop this spring.

#### *March.*

Edmonton.—Total hours of bright sunshine 161; ground almost bare of snow. The month opened with low temperatures and cold variable winds. Intermittent snow during the first half with strong keen winds; it ended milder. No reports of farming activities from the surrounding districts. River temperature 34; ice unsafe for traffic from the 15th, still stretches from bank to bank; trails soft and broken; all wheel traffic now in use. Medicine Hat.—The cold weather has kept up unusually late this season; ice still solid on the Saskatchewan. Some loss in stock recorded, and the snow is reported the deepest for years in the southern townships. Average daily sunshine five hours.

#### *April.*

Edmonton.—The chief weather characteristics were keen winds and high percentage of cloud with intermittent rain, snow and hail. Farmers' reports from surrounding districts good. Ploughing in full swing. Seeding has commenced on high well-drained land, but more backward on low-lying ground; stock in excellent condition. River ice moved out on the 13th. River rising four and a half feet on that date; falling on the 20th; now normal. Calgary.—Very cold month; lots of wheat not sown yet; ice not all out of rivers. Minnedosa.—Spring cold and backward, land not dry enough to work in many places; a little seeding done, but stopped by snowstorm; roads bad. Medicine Hat.—The mean temperature for the month was unusually low; not much seeding on account of the ground being too wet. The total sunshine for the month was also low.

*May.*

Edmonton.—May opened with high percentage of cloud and light snow-fall; continuous light cold winds throughout; frost on the 27th and 30th, killing vines but not injuring wheat or oats, which are very promising, even more advanced than May, 1916; light rains helping growth considerably; stock in excellent condition though green feed not abundant; river normal. Lacombe Experimental Farm.—Weather conditions during May favorable in southeastern and eastern section of central Alberta in which normal area is seeded. Excessive rain delayed seeding operations over an area approximately fifty miles wide along Calgary and Edmonton Railway, and acreage under crop in this district has been reduced thereby. Calgary.—Heavy rains half of the month; crops all in and doing fine; rivers have risen a great deal. Lethbridge Experimental Farm.—Although there have been eight showery days rainfall was only .95 inch; there is in Southern Alberta five to ten per cent. increase in acreage of wheat over last year, very slight increase in barley and oats, but twenty per cent. increase in flax; crops ten days behind normal. Medicine Hat.—Spring late, but weather setting in warm at beginning of the month with the amount of moisture in the ground makes early seeding look fine. Seeding completed, except odd patches of flax still being sown. Grass pretty good on the prairies, so stock can feed comfortably; 277 hours of clear sunshine for the month; light frost on night of 29th touched tender plants in some of the gardens.

*June.*

Edmonton.—Total hours of bright sunshine, 309. The month opened cool and cloudy with cold N.N.E. winds; then becoming warm with intermittent light rain stimulating growth tremendously; all grain in splendid condition. Precipitation well below normal. Farmers report promise of excellent crops from the surrounding districts. River high, navigation to Shandro commenced early in the month. June closed clear and warm with abundant sunshine. Calgary.—Coo' month but crops doing well, a little late, all garden truck is late for this time of year. Medicine Hat.—Crops that were properly put in are promising well. Many fields spring plowed or disked in are suffering for rain. The acreage is somewhat in excess of last year. Pasture and upland grass good. Average daily sunshine 9.9 hours; some strong winds near the end of the month. Lethbridge.—Rainfall only about one-third of the average for the last fifteen years. No injury yet done to early sown crops, which are excellent, but need of immediate rainfall in Southern Alberta imperative. Late seedings have grown very unevenly. Lacombe.—Stage of crop developments below normal for month of June, closing week of month favorable for rapid growth, supply of moisture in this section ample. Eastern section of Central Alberta would be better for rain. Hay crop promises well.

*July.*

Edmonton.—Total hours of bright sunshine, 351. July has been a particularly clear and sultry month; several thunderstorms and very little rain during the middle weeks, but the month closed with steady warm rain bringing precipitation and crops up to average, promising a good harvest. All stock very fine. River keeping low, variation two feet during month, four feet lower on 1st and seven feet on 31st than in 1916. Lacombe.—Slightly over one inch of rain early part of July; while crops in few sections not suffering seriously, rain is badly needed in most districts and would be beneficial all over Central Alberta. Hay crop sixty per cent. completed. Early varieties grain will harvest next week. Calgary.—Month very warm and very little rain; crops are good but need rain. Medicine Hat.—Weather hot and sultry during the month. Crops suffered materially for want of rain; wheat ripening very fast; some have started harvesting wheat. Haying quite general. Three hundred and sixty-four hours of bright sunshine during the month. Crops in general are very poor owing to continued dry weather.

*August.*

Edmonton.—August opened cool and wet, changing to warm and sultry weather with occasional thunderstorms; crops promising abundant harvest, in surrounding districts wheat is cut and stooked, commenced cutting oats, stock in excellent condition; light frost reported on south side of river, nowhere on north side; river variation 2.2 feet; month closing with cold northwest winds. 269 hours sunshine. Lacombe.—Dry warm weather during August was favorable for curing hay, and forced grain crops to maturity rapidly; harvesting



in Central Alberta further advanced at end of August than for any previous season for ten years. Yield of grain will be below average but superior in quality. Cutting 50 per cent. finished. Calgary.—Most of crops cut, crops on summer fallow good; stubbled in, only fair; wet month, should have had it previous month; ducks plentiful; prairie chicken scarce. Lethbridge.—Harvest well advanced in Southern Alberta; in eastern part wheat practically all cut, in western part seventy to eighty per cent. cut; threshing commenced. Yields generally are somewhat lighter than anticipated by farmers; oats and barley rather poor; serious hailstorm High River east; no frost recorded at station during August. Medicine Hat.—Harvesting about completed; crops in most places fair to good; most farmers have sufficient hay provided for winter; threshing well commenced but kept back for lack of help; there were 307 hours bright sunshine; delightful weather for the most part during the month.

#### *September.*

Edmonton.—September opened cold with intermittent fine rain, becoming warmer towards middle of month; closed clear and cool. First killing frost on 25th; precipitation below normal; good average sunshine; wheat yield 25 bushels; oats 55 bushels, and barley 35 bushels to the acre. River normal, with variation of 18 inches for the month; 204 hours of sunshine. Lacombe.—Harvesting operations were completed early in September and threshing was well under way at the close; out-turn of grain of excellent quality, and above expectations as to yield; fall ploughing begun in many districts, and if dry weather does not prevent it much land will be prepared for crop this fall. Calgary.—Month very good for harvesting crop; good yield. Medicine Hat.—Threshing about completed; considerable flax yet to cut, a second growth set in owing to rain in the early part of the month which leaves the fields very mixed, some flax ripe and some in bloom; wheat yielding rather light but fair sample; considerable land is being prepared for next year.

#### *October.*

Edmonton.—Month opened overcast with light rain and strong west, northwesterly winds, followed later in the month by snow and a little hail; heavy frost killed garden products on the 15th; all crops fair, wheat high grade; threshing practically finished; fall plowing well advanced; soft ice floating in river since middle of the month. Calgary.—Considerable snow fell latter part of the month, but none on ground at close; geese flying south; sloughs and small streams all frozen over; everybody has threshed. Medicine Hat.—We had not one whole day of clear sky during the month, which was very unusual; the weather for the most part was fair and very favorable for fall plowing of which there has been considerable done; we had quite a snow-storm on the 16th, with some pretensions to a blizzard, but no damage reported; roads were bad for a few days, but all cleared off again; stocks are doing quite well.

#### *November.*

Edmonton.—Total hours of bright sunshine 153; snow on ground on the 30th, 3 inches; November weather was remarkably mild throughout with abundant sunshine and light south-westerly winds, precipitation much below normal. Farming activities finished in this surrounding districts. All stock in excellent condition; river still open. Month closing with low temperature, cold strong easterly winds and snow. Calgary.—No precipitation during the month, very mild; frost only 6 inches in ground. Medicine Hat.—Farmers well on with ploughing. A very large acreage ready for seeding in spring; beautiful weather throughout; stock in good condition; fodder plentiful; potatoes light crop; nearly everybody comfortably prepared for winter.

#### *December.*

Edmonton.—Month opened with a heavy snowfall, and with the exception of two brief periods, 19th-22nd, and 30th-31st, was extremely cold throughout. River frozen on the 8th, ice thick enough for traffic on the 15th; sleighing from the 7th; 3 ins. snow on ground on 31st, 3 ft. in drifts; 58 hours of sunshine. Calgary.—Very cool, 3 inches of snow on ground greater part of month; warm chinook last few days. Medicine Hat.—Two heavy falls of snow, one at the middle and the other towards the end of the month. The first was entirely taken away by chinook. No reports of any damage or mishaps in consequence of the snow; the average mean temperature for the month was unusually low, and the average daily sunshine was also unusually low.



## PRECIPITATION FOR 1917.

## STATIONS

## NORTH SASKATCHEWAN RIVER

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Argyle .....	.....	.....	.....	0.20	1.01	1.36	1.95	2.21	1.99	0.46	0.07	0.10	9.35
Calmor .....	0.77	1.30	1.83	2.99	2.51	.....	1.40	2.48	.....	.....	0.28	0.62	14.18
Campsie .....	1.26	0.13	0.95	2.52	3.20	1.69	.....	.....	.....	.....	0.77	1.03	11.55
Daysland .....	2.43	1.34	0.30	1.28	1.42	1.33	1.68	1.86	1.22	0.48	0.23	1.60	15.17
Edmonton .....	1.89	1.19	0.12	1.05	0.90	1.72	3.15	2.77	0.41	0.67	0.48	0.90	15.25
Elk Point .....	1.18	.....	.....	0.50	.....	.....	.....	.....	0.88	0.59	0.45	.....	1.86
Endiang .....	0.35	0.30	.....	0.70	1.50	0.54	2.95	1.51	1.64	1.18	0.10	0.90	11.67
Halkirk (Emsburg) .....	0.33	0.45	0.07	0.37	1.20	0.91	0.99	2.07	2.58	0.61	0.04	0.54	10.36
Hardisty .....	1.27	0.41	.....	0.40	1.23	2.08	1.38	1.40	2.04	.....	0.47	.....	10.68
Nordogg .....	0.73	0.74	0.51	1.26	4.40	1.36	1.13	3.32	2.40	2.48	0.55	0.80	22.68
Rantuly (Waitefield) .....	1.53	1.09	0.27	0.73	0.72	2.22	1.72	1.48	0.75	0.48	0.39	0.70	12.08
Rocky Mountain House .....	.....	.....	0.95	2.24	6.55	2.11	2.90	1.77	2.04	2.42	0.15	1.40	22.53
Sedgewick .....	.....	.....	.....	.....	.....	1.59	1.13	1.70	.....	.....	.....	.....	4.42
Sien .....	2.05	1.40	0.56	1.58	3.09	3.33	3.44	1.65	1.12	1.28	.....	.....	19.50
Vermilion .....	1.42	0.31	0.15	0.53	2.18	1.46	0.70	1.00	0.68	.....	0.29	.....	8.72
Wadena .....	.....	.....	.....	0.55	0.66	0.61	.....	1.32	0.43	0.67	.....	.....	4.04
Wetaskiwin .....	.....	.....	.....	.....	.....	.....	0.85	1.53	0.60	0.25	0.24	1.22	4.69

## THE RED DEER RIVER

Alix .....	2.27	0.58	1.00	2.50	2.28	1.93	0.52	2.00	1.34	1.54	0.00	.....	16.06
Alsask .....	.....	.....	.....	.....	.....	0.55	0.93	3.91	0.42	0.35	0.25	0.10	6.54
Delta .....	0.54	0.63	.....	.....	0.79	1.10	2.22	1.23	0.99	.....	.....	.....	13.89
Didsbury .....	0.50	0.20	0.60	.....	3.76	2.54	0.83	2.13	2.52	2.44	0.00	1.00	16.52
Empress .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Harmattan .....	0.40	0.15	0.20	2.19	1.94	2.43	1.81	2.08	1.66	1.18	T.	0.40	17.44
Hillsdown .....	1.53	0.50	0.40	1.55	2.27	1.70	1.64	1.39	1.40	1.39	0.14	1.15	15.06
Jenper .....	0.40	0.58	0.28	0.22	2.87	2.63	0.56	3.70	0.61	0.89	.....	.....	14.69
Lacombe (Ex. Farm) .....	0.75	0.52	0.33	1.21	3.26	1.49	1.13	1.88	2.04	1.36	0.00	1.25	15.25
Munson .....	.....	.....	.....	.....	0.75	.....	1.12	1.75	.....	.....	.....	.....	3.62
Olds .....	0.60	.....	.....	4.86	0.75	1.88	0.87	.....	.....	.....	.....	.....	8.21
Red Deer .....	4.60	2.00	0.28	1.70	1.36	0.98	0.41	1.64	1.61	1.10	0.05	0.85	16.58
Rosedale .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sprindale .....	1.33	0.63	0.55	1.90	3.31	1.68	1.76	1.80	1.17	1.63	0.08	1.35	17.19

## PRECIPITATION (Continued)

STATIONS	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
<b>THE BOW RIVER</b>													
Bassano .....	0.25	0.20	0.03	0.24	1.40	1.90	1.17	2.76	0.69	0.45	0.20	3.00	12.38
Bow Island .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Brooks .....	.....	0.31	0.15	0.83	1.01	0.89	.....	.....	.....	0.48	0.08	1.93	5.68
Brooks (2) .....	.....	.....	.....	1.72	.....	.....	1.06	.....	0.82	0.70	0.10	2.40	6.80
Calgary .....	0.31	0.50	0.16	0.90	1.76	1.98	0.47	1.52	0.95	1.38	T.	1.44	11.44
Clareholm .....	0.23	0.58	0.49	1.25	3.04	3.23	1.54	1.40	1.44	1.23	0.00	0.43	15.46
Expanse Coulee .....	0.58	0.56	0.21	0.68	1.02	0.95	0.61	2.25	1.18	0.25	0.00	2.05	11.48
Permont .....	.....	.....	.....	0.71	.....	1.00	.....	.....	.....	.....	.....	.....	1.83
Gen .....	0.75	0.65	.....	0.22	1.70	1.71	0.61	3.12	0.71	0.68	0.30	2.15	12.93
Gleichen .....	.....	0.20	0.20	0.25	2.10	1.50	0.47	1.55	0.90	0.80	0.00	1.20	9.17
Lethbridge (Exp. Farm) .....	0.43	0.38	0.16	1.54	0.95	1.12	1.34	2.00	1.67	0.77	0.00	1.31	11.93
Lundbrook (Livingstone) .....	0.93	0.90	0.95	2.09	1.22	2.11	0.17	1.91	4.07	1.38	0.00	1.69	18.35
Macleod .....	1.30	1.00	0.63	1.71	2.07	1.93	0.63	0.75	1.16	1.80	0.05	1.40	14.48
Medicine Hat .....	0.72	0.55	0.14	0.83	0.17	1.79	0.52	3.08	1.43	1.25	0.00	2.94	13.42
Medicine Hat (Exp. Farm) .....	.....	.....	.....	.....	.....	.....	.....	.....	1.38	.....	0.02	.....	1.40
Mill River .....	0.60	.....	.....	.....	0.85	3.55	0.15	0.93	.....	1.10	0.00	.....	6.78
Munda (Manberries Ranch) .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Olatoks .....	0.25	0.15	0.40	1.04	1.18	2.70	0.33	1.60	0.76	1.63	0.00	0.55	10.89
Pekisko .....	0.70	0.75	0.93	4.08	6.52	3.83	0.25	2.37	1.80	.....	0.00	1.32	22.55
Fincher Creek .....	0.78	1.02	0.55	2.02	3.37	2.25	0.24	1.77	2.14	1.14	0.13	2.15	17.56
Ronolane .....	0.28	0.35	0.03	1.31	0.76	1.29	0.24	1.34	1.53	0.65	T.	1.40	9.27
Strathmore .....	.....	.....	.....	0.55	3.27	2.30	0.51	2.18	1.95	1.30	0.00	1.30	12.77
Suffield .....	0.20	0.48	0.30	0.59	0.23	0.93	1.57	1.73	0.92	1.01	0.30	1.20	9.46
Sundial .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Twin Lakes (Kimball) .....	2.10	1.20	2.50	3.70	2.42	2.29	0.07	1.20	1.22	2.50	0.00	3.70	22.90
Whitla .....	.....	.....	.....	.....	0.16	.....	0.59	0.15	1.52	0.63	.....	.....	4.05
<b>ROCKY MOUNTAINS</b>													
Banff .....	0.72	0.35	1.14	0.80	3.28	2.95	2.26	1.87	1.10	1.09	0.31	3.42	19.29
Mountain Park .....	1.00	0.70	.....	1.52	.....	.....	.....	4.58	3.57	2.34	0.40	0.80	14.91

## PRECIPITATION—(Continued).

STATIONS	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
ATHABASCA RIVER													
Athabasca Landing .....	1.03	0.21	0.08	0.05	0.94	4.08	2.83	1.76	0.94	0.40	0.74	0.48	13.54
Edison .....	1.70	1.08	0.15	0.19	0.95	..	..	..	..	1.00	0.20	0.90	6.38
Jasper .....	0.31	..	..	..	..	1.16	0.71	..	1.63	0.70	1.22	2.26	7.99
Wabasca .....	1.13	0.70	0.65	0.03	2.05	1.72	3.36	0.86	0.22	0.52	0.19	2.10	13.52
Entrance .....	..	..	..	..	..	..	1.04	3.46	3.77	0.98	0.30	0.90	10.45
PEACE RIVER													
Beaver Lodge .....	..	..	0.50	0.25	..	..	..	..	..	0.45	0.30	1.00	2.50
Dunvegan .....	1.85	0.75	0.50	0.09	2.09	1.06	..	..	..	..	0.20	0.75	7.29
Fort Vermilion .....	0.45	0.10	1.65	0.05	0.41	1.74	2.15	1.33	0.12	0.33	0.38	..	8.71
Fort Vermilion (2) .....	..	..	..	..	..	..	..	..	0.14	0.40	0.20	0.68	1.42
Grande Prairie .....	2.50	1.65	0.95	0.57	6.62	1.02	0.52	0.89	0.21	0.60	0.39	2.60	17.67

## TEMPERATURE MAXIMUM AND MINIMUM

## STATION

		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Argyle	Maximum	49	41	50	56	82	86	94	89	87	70	73	45
	Minimum	-47	-56	-22	-4	20	29	35	31	17	1	9	48
Cedar	Maximum	47	48	48	54	76	80	83	83	82	70	70	52
	Minimum	-51	-57	-13	0	20	28	31	29	20	13	13	45
Chapais	Maximum	49	49	50	60	79	80	87	87	87	69	69	41
	Minimum	-47	-52	-22	-8	17	26	37	37	37	1	1	50
Day's Land	Maximum	45	42	48	53	79	87	90	84	85	71	66	45
	Minimum	-42	-46	-16	-6	23	32	39	30	21	6	14	38
Edmonton	Maximum	47	45	43	34	79	80	86	80	82	76	66	34
	Minimum	-44	-50	-8	-7	23	33	40	35	24	10	13	42
Elk Point	Maximum	40	...	...	...	...	...	...	83	87	75	65	25
	Minimum	17	...	...	...	...	...	...	26	19	13	2	60
Enoch	Maximum	38	40	48	52	77	84	89	83	81	68	62	43
	Minimum	-41	-42	-14	9	21	34	36	37	27	8	17	36
Halkirk (Emsburg)	Maximum	38	38	47	54	79	86	90	83	77	66	62	43
	Minimum	-46	-51	-22	-5	23	32	38	36	29	8	16	26
Hardisty	Maximum	45	42	48	57	82	85	93	88	84	71	68	33
	Minimum	38	54	19	5	20	28	29	32	21	4	11	44
Nordegg	Maximum	48	48	46	46	60	76	84	79	71	66	62	50
	Minimum	-42	-36	-4	2	18	29	35	30	27	0	0	38
Ranbury	Maximum	43	39	40	54	81	86	91	90	86	75	69	35
	Minimum	46	-60	25	33	21	25	40	34	21	1	5	53
Rocky Mountain	Maximum	...	57	53	63	81	87	87	84	86	72	62	54
	Minimum	...	-35	-18	-10	21	27	33	...	...	...	1	42
Sedgewick	Maximum	...	...	...	52	...	...	91	89	...	...	...	40
	Minimum	...	...	...	14	...	...	40	...	...	...	...	47
Slon	Maximum	48	46	52	58	78	83	90	81	77	73	...	...
	Minimum	-52	-53	-16	-8	14	23	38	27	18	3	...	...
Vermilion	Maximum	44	42	40	51	88	82	89	87	81	70	68	...
	Minimum	-61	-57	-29	0	18	26	37	29	17	8	4	...
Wadena	Maximum	41	38	49	58	84	87	...	90	86	69	67	...
	Minimum	45	-47	-21	10	20	28	...	31	19	2	5	...
Wetaskiwin	Maximum	...	...	...	...	...	...	86	82	80	75	70	30
	Minimum	...	...	...	...	...	...	31	22	...	8	8	49

## RED RIVER

Alta .....	{ Maximum ..	44	46	52	60	84	86	97	89	76	66	...
	{ Minimum ..	53	52	15	...	20	32	36	31	26	5	14
Alaska .....	{ Maximum ..	...	...	...	...	...	82	94	86	72	63	43
	{ Minimum ..	...	...	...	...	...	31	41	37	26	5	38
Delta .....	{ Maximum ..	38	36	41	54	80	87	90	83	78	...	...
	{ Minimum ..	27	25	3	10	15	22	26	36	28	...	...
Edwards .....	{ Maximum ..	46	50	54	64	76	86	86	78	72	70	52
	{ Minimum ..	38	36	6	10	22	34	38	34	28	12	30
Empress .....	{ Maximum ..	...	18	...	...	...	...	...	...	...	...	...
	{ Minimum ..	...	50	...	...	...	...	...	...	...	...	...
Harmattan .....	{ Maximum ..	46	53	54	59	74	83	85	84	82	75	70
	{ Minimum ..	50	35	23	8	16	30	31	28	22	6	10
Hillsdown .....	{ Maximum ..	44	47	53	57	78	84	85	83	78	72	65
	{ Minimum ..	46	45	14	11	21	32	31	31	28	12	17
Jenner .....	{ Maximum ..	53	50	53	72	...	...	108	99	92	...	...
	{ Minimum ..	46	41	18	16	22	...	45	36	31	...	...
Lacombe .....	{ Maximum ..	43	45	48	59	76	83	86	86	82	73	70
	{ Minimum ..	50	46	15	5	13	28	30	31	24	8	11
Munson .....	{ Maximum ..	...	...	...	88	...	94	93	...	...	...	...
	{ Minimum ..	...	...	...	12	...	38	29	...	...	...	...
Olds .....	{ Maximum ..	50	47	...	...	74	80	83	...	...	...	...
	{ Minimum ..	40	41	...	...	19	34	35	...	...	...	...
Red Deer .....	{ Maximum ..	44	44	50	62	78	83	86	84	81	73	69
	{ Minimum ..	52	47	14	2	18	29	33	31	20	10	13
Rosedale .....	{ Maximum ..	...	...	...	...	...	...	...	...	...	...	...
	{ Minimum ..	...	...	...	...	...	...	...	...	...	...	...
Springdale .....	{ Maximum ..	44	46	46	54	77	82	85	84	80	75	65
	{ Minimum ..	53	40	23	1	7	25	29	26	20	10	2

## BOW RIVER

Bassano .....	{ Maximum ..	46	49	58	60	81	87	95	88	85	73	70
	{ Minimum ..	35	40	24	15	24	31	41	40	33	6	16
Brooks (1) .....	{ Maximum ..	32	45	59	64	89	88	96	87	80	75	...
	{ Minimum ..	43	45	23	17	23	34	41	37	28	7	...
Brooks (2) .....	{ Maximum ..	...	...	...	...	83	86	100	...	88	75	69
	{ Minimum ..	...	...	...	15	20	30	36	...	31	7	13
Calgary .....	{ Maximum ..	48	56	50	62	82	88	91	88	86	80	67
	{ Minimum ..	36	38	10	10	22	32	34	34	30	7	15

## TEMPERATURE MAXIMUM AND MINIMUM (Continued)

STATION	TEMPERATURE MAXIMUM AND MINIMUM (Continued)											
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Clareholm ..	Maximum .. 46	55	60	59	79	83	89	84	82	79	68	56
	Minimum .. -42	-48	-20	13	24	32	42	34	25	6	10	35
Expanse Coulee ..	Maximum .. 48	46	60	64	83	87	99	92	85	82	71	47
	Minimum .. -48	-40	-21	15	22	30	40	31	26	6	12	31
Fergusport ..	Maximum ..	....	....	....	80	89	....	....	....	....	....	....
	Minimum ..	....	....	....	24	....	....	....	....	....	....	....
Gem ..	Maximum .. 42	41	50	61	83	84	93	88	80	72	66	46
	Minimum .. -46	-51	-16	12	17	32	37	32	27	3	15	46
Gleichen ..	Maximum .. 43	45	53	61	79	83	91	85	85	75	65	44
	Minimum .. -40	-51	-17	15	21	35	39	35	27	7	18	35
Lethbridge ..	Maximum .. 49	54	59	61	81	82	93	89	77	79	70	55
	Minimum .. -42	-42	-17	12	16	31	38	35	20	6	16	32
Macleod ..	Maximum .. 46	52	53	58	80	85	95	88	85	80	68	54
	Minimum .. -47	-39	-1	15	22	35	39	34	31	8	15	34
Medicine Hat ..	Maximum .. 48	43	57	64	94	91	101	95	85	76	68	46
	Minimum .. -47	-39	-22	20	25	37	46	38	28	9	18	35
Milk River ..	Maximum .. 43	45	44	....	84	84	97	88	....	85	70	....
	Minimum .. -39	-36	-13	....	24	21	39	29	....	3	17	....
Minda (Manyberries) ..	Maximum .. 41	49	....	....	....	....	....	....	....	....	....	....
	Minimum .. 14	40	....	....	....	....	....	....	....	....	....	....
Okeetoks ..	Maximum .. 47	54	51	57	75	82	84	81	78	74	67	56
	Minimum .. 39	39	16	13	24	33	38	36	19	3	15	28
Pekisko ..	Maximum .. 47	49	47	49	71	73	86	81	79	72	65	57
	Minimum .. -49	-48	-18	-5	9	28	28	23	30	8	8	35
Pincher Creek ..	Maximum .. 45	46	47	53	75	81	89	83	86	76	64	54
	Minimum .. 42	39	8	11	21	32	41	36	26	7	15	31
Redclaire ..	Maximum .. 45	52	58	62	86	88	96	93	83	83	70	46
	Minimum .. 36	42	11	15	21	33	42	35	29	10	14	-37
Strathmore ..	Maximum ..	....	....	....	59	79	83	86	85	74	66	44
	Minimum ..	....	....	....	12	21	34	33	21	5	5	35
Suffield ..	Maximum .. 42	43	53	64	84	87	97	94	....	....	68	41
	Minimum .. 43	39	21	16	21	31	37	34	....	....	11	35
Sundial ..	Maximum .. 46	53	59	62	82	....	97	....	....	....	....	....
	Minimum .. -42	-37	-18	-14	27	....	40	....	....	....	....	....

Twin Lakes . . . . .	{ Maximum . . .	43	47	43	54	78	80	88	83	82	75	65	52
	{ Minimum . . .	—46	—30	—12	9	25	28	34	31	26	12	14	32
Whitla . . . . .	{ Maximum . . .	...	...	...	60	86	...	98	89	84	82	68	...
	{ Minimum . . .	...	...	...	15	23	...	44	35	26	4	18	...
ROCKY MOUNTAINS													
Banff . . . . .	{ Maximum . . .	40	44	42	49	71	78	90	84	76	67	56	44
	{ Minimum . . .	—39	—44	—11	—5	17	29	35	30	25	0	16	39
Mountain Park . . . . .	{ Maximum . . .	41	68	...	43	...	...	...	76	70	62	57	48
	{ Minimum . . .	—57	—45	...	—2	...	...	...	26	14	—9	15	35
ATHABASCA RIVER													
Athabasca Landing . . . . .	{ Maximum . . .	39	45	44	54	79	82	89	80	84	68	67	35
	{ Minimum . . .	—55	—65	—18	—10	21	25	38	32	18	—6	9	56
Edson . . . . .	{ Maximum . . .	47	54	53	59	78	82	87	88	83	76	66	42
	{ Minimum . . .	42	44	12	4	21	30	30	29	22	0	3	48
Jasper . . . . .	{ Maximum . . .	39	...	45	51	...	83	90	...	74	70	62	47
	{ Minimum . . .	—47	...	—3	1	...	30	38	...	25	4	8	39
Wabasca . . . . .	{ Maximum . . .	48	49	44	54	81	87	89	84	88	73	65	11
	{ Minimum . . .	—47	—51	—13	—13	18	29	41	38	25	2	4	51
Entrance . . . . .	{ Maximum . . .	...	...	...	...	...	82	91	87	84	73	66	50
	{ Minimum . . .	...	...	...	...	...	30	0	0	20	7	10	39
PEACE RIVER													
Beaver Lodge . . . . .	{ Maximum . . .	...	...	44	55	79	78	86	84	80	72	66	43
	{ Minimum . . .	...	...	12	1	17	32	27	25	19	1	16	36
Dunvegan . . . . .	{ Maximum . . .	47	50	48	59	81	81	...	...	...	...	60	10
	{ Minimum . . .	51	45	7	1	19	33	...	...	...	...	5	64
Fort Vermilion (1) . . . . .	{ Maximum . . .	42	30	12	58	89	78	88	82	86	62	61	...
	{ Minimum . . .	—60	—71	39	—21	11	20	33	28	15	—14	14	...
Fort Vermilion (2) . . . . .	{ Maximum . . .	...	...	...	...	...	...	...	...	84	62	60	4
	{ Minimum . . .	...	...	...	...	...	...	...	...	14	—12	15	64
Grande Prairie . . . . .	{ Maximum . . .	45	47	42	57	78	78	84	81	78	71	65	42
	{ Minimum . . .	—52	—46	—1	7	17	35	32	30	19	3	14	44

SUMMARY OF THE ACREAGE AND YIELDS OF THE LEADING GRAINS  
DURING THE LAST TEN YEARS

	Year	Crop Area in acres	Total Yield in bushels	Average Yield per acre	Average Yield
Spring Wheat	1917	2,622,853	51,805,839	19.00	20.34
	1916	1,549,075	41,163,471	24.18	
	1915	1,637,122	58,830,704	35.93	
	1914	989,561	15,102,083	15.26	
	1913	1,043,114	20,360,104	19.51	
	1912	957,874	17,434,774	18.20	
	1911	757,493	15,730,238	20.75	
	1910	450,493	5,697,956	12.85	
	1909	324,472	6,155,455	18.97	
	1908	212,677	4,001,504	18.81	
Winter Wheat	1917	51,704	1,023,173	20.00	22.61
	1916	18,663	447,475	23.89	
	1915	31,954	1,257,985	39.37	
	1914	49,930	837,204	16.77	
	1913	83,719	1,250,129	14.93	
	1912	120,811	2,395,875	19.83	
	1911	182,671	4,336,749	23.74	
	1910	142,467	2,206,564	15.48	
	1909	102,167	2,312,344	22.63	
	1908	104,956	3,093,422	29.47	
Oats	1917	2,667,291	85,726,170	32.14	37.65
	1916	1,394,927	60,798,239	43.78	
	1915	1,570,596	90,582,694	57.66	
	1914	1,147,382	34,597,117	30.15	
	1913	1,221,450	44,078,325	36.09	
	1912	971,969	37,085,234	38.15	
	1911	669,827	27,604,993	41.21	
	1910	492,589	12,158,530	24.68	
	1909	693,901	24,819,661	35.76	
	1908	431,145	15,922,974	36.93	
Barley	1917	462,726	9,984,789	22.56	26.81
	1916	297,967	8,477,232	28.64	
	1915	374,062	12,761,187	34.11	
	1914	340,992	7,847,640	23.01	
	1913	333,462	8,645,812	25.92	
	1912	225,055	6,287,112	27.94	
	1911	103,302	3,037,584	29.41	
	1910	90,901	1,899,509	20.79	
	1909	107,764	3,310,332	30.72	
	1908	77,876	1,949,164	25.03	
Flax	1917	139,527	777,690	5.6	8.63
	1916	13,361	574,70	12.43	
	1915	41,244	569,762	13.57	
	1914	41,956	297,115	4.97	
	1913	96,413	799,653	8.29	
	1912	112,776	1,196,416	10.60	
	1911	16,549	153,908	9.30	
	1910	15,271	46,155	3.02	
	1909	12,479	131,531	10.54	
	1908	9,262	71,762	7.96	



SUMMARY OF THE ACREAGE AND YIELDS OF THE LEADING GRAINS  
DURING THE LAST TEN YEARS—(Continued).

	Year	Crop Area in acres	Total Yield in bushels	Average Yield per acre	Average Yield
Rye .....	1917	29,997	764,828	26.00	24.48
	1916	10,134	212,503	23.25	
	1915	12,067	291,399	24.14	
	1914	14,623	261,843	17.90	
	1913	17,452	370,661	21.24	
	1912	2,493	54,119	21.70	
	1911	2,190	38,722	17.68	
	1910	1,522	28,306	18.60	
	1909	1,592	25,801	16.20	
	1908	1,250	22,625	18.10	
Speltz .....	1917	2,305	62,107	27.51	21.68
	1916	1,194	38,752	32.45	
	1915	2,025	42,707	21.09	
	1914	3,625	70,998	19.59	
	1912	774	11,528	14.89	
	1911	203	5,337	26.29	
	1910	18	164	9.11	
	1909	269	6,369	23.67	
	1908	484	9,697	20.03	
Other Grains .....	1917	49,000	490,000	10.00	
Green Feed .....	1916	505,044			

	Total Crop Area	Total Yield of Grain
1917 .....	5 974,098	150,082,489
1916 .....	3 821,476	111,735,729
1915 .....	3 668,238	164,332,483
1914 .....	2 586,169	58,895,709
1913 .....	2 799,267	75,575,682
1912 .....	2 391,752	64,465,058
1911 .....	1 732,648	50,907,531
1910 .....	1 193,261	22,027,184
1909 .....	1 242,644	36,761,493
1908 .....	837,641	25,073,147

## CROP STATISTICS.

## SPRING WHEAT.

No	Crop District	Year	Bushels	Acreage	Yield per Acre
1	Medicine Hat .....	1916	1,759,082	75,400	23.33
		1917	1,947,843	99,777	20.00
2	Warner .....	1916	1,296,854	41,834	31.00
		1917	1,274,364	77,567	17.05
3	Cardston .....	1916	933,704	23,645	31.03
		1917	2,132,820	115,011	19.00
4	Pincher Creek .....	1916	341,932	13,202	25.90
		1917	115,380	6,552	18.02
5	Macleod .....	1916	1,003,515	34,029	29.49
		1917	807,471	46,449	18.00
6	Claresholm .....	1916	2,135,517	65,688	32.51
		1917	2,462,805	90,891	27.03
7	Nanton .....	1916	1,239,714	44,986	27.56
		1917	209,232	8,559	25.00
8	Little Bow .....	1916	7,614,625	246,536	30.85
		1917	3,145,608	141,624	22.05
9	Taber .....	1916	4,314,296	127,788	32.97
		1917	3,518,748	172,697	20.00
10	Redcliff .....	1916	1,296,771	48,369	25.81
		1917	1,004,382	61,376	17.01
11	Bow Valley .....	1916	823,965	26,739	30.80
		1917	1,786,356	80,046	22.00
12	Gleichen .....	1916	1,811,879	53,590	33.81
		1917	1,978,218	83,988	23.04
13	High River .....	1916	679,168	26,080	28.35
		1917	2,330,055	97,011	24.02
14	Okotoks .....	1916	442,260	13,608	32.50
		1917	1,114,308	44,730	25.00
15	Rocky Mountain .....	1916	35,685	1,381	25.84
		1917	41,310	2,847	15.01
16	Calgary .....	1916	48,783	2,121	23.00
		1917	.....	.....	.....
17	Cochrane .....	1916	202,728	8,447	24.00
		1917	58,626	3,897	15.03
18	Didsbury .....	1916	493,557	18,079	27.30
		1917	7,434,270	27,441	28.12
19	Hand Hills .....	1916	2,281,889	90,948	25.20
		1917	3,712,131	241,425	15.00
20	Acadia .....	1916	2,074,227	93,814	29.11
		1917	1,477,791	82,436	18.00
21	Coronation .....	1916	1,895,269	88,440	21.43
		1917	1,444,284	97,243	15.00
22	Stettler .....	1916	1,033,053	49,193	21.00
		1917	1,873,764	107,676	17.05
23	Olds .....	1916	291,136	13,073	22.27
		1917	5,781,870	283,050	20.50
24	Innisfail .....	1916	70,705	3,915	18.00
		1917	242,964	11,034	22.00
25	Red Deer .....	1916	86,894	4,486	19.37
		1917	93,573	4,158	23.02
26	Lacombe .....	1916	260,289	12,892	20.19
		1917	255,834	14,373	18.00
27	Ponoka .....	1916	104,474	4,942	21.14
		1917	329,742	16,830	20.06
28	Wetaskiwin .....	1916	108,846	6,047	18.00
		1917	220,644	10,683	21.00
29	Camrose .....	1916	510,568	26,872	19.00
		1917	765,144	33,984	23.00
30	Sedgewick .....	1916	1,450,614	64,764	22.40
		1917	1,490,040	8,935	18.00

## SPRING WHEAT—(Continued).

No	Crop District	Year	Bushels	Acreage	Yield per Acre
31	Ribstone . . . . .	1916	1,087,460	54,373	20.09
		1917	1,257,831	70,617	18.00
32	Wainwright . . . . .	1916	836,523	40,806	20.50
		1917	859,590	46,062	19.00
33	Alexandra . . . . .	1916	267,733	16,187	16.54
		1917	520,911	27,795	19.00
34	Vermilion . . . . .	1916	234,718	12,975	18.09
		1917	687,735	45,693	15.00
35	Vegreville . . . . .	1916	452,899	20,987	21.58
		1917	586,710	36,153	16.00
36	South Edmonton . . . . .	1916	89,402	3,916	22.83
		1917	135,306	5,130	26.52
37	Leduc . . . . .	1916	141,621	6,328	22.38
		1917	263,142	13,419	20.00
38	Stony Plain . . . . .	1916	98,604	4,482	22.00
		1917	287,937	15,174	19.00
40	Lac Ste. Anne . . . . .	1916	24,565	1,652	14.87
		1917	126,540	7,344	17.00
41	Pembina . . . . .	1916	62,828	3,326	18.89
		1917	252,018	11,592	22.00
42	St. Albert . . . . .	1916	40,158	2,283	17.59
		1917	180,765	7,299	25.00
43	Sturgeon . . . . .	1916	186,050	6,092	30.54
		1917	813,816	21,758	34.03
44	Victoria . . . . .	1916	318,953	12,577	25.36
		1917	823,446	41,949	19.00
45	Whitford . . . . .	1916	206,648	10,220	20.22
		1917	681,183	19,899	34.00
46	Beaver River . . . . .	1916	38,328	1,912	19.00
		1917	444,627	24,363	18.04
47	St. Paul . . . . .	1916	29,069	2,570	11.70
		1917	182,205	10,692	17.50
49	Athabasca . . . . .	1916	30,207	710	17.63
		1917	380,430	20,070	19.00
50	Grouard . . . . .	1916	21,865	540	40.49
		1917	32,058	1,996	16.02
51	Peace River . . . . .	1916	113,156	7,360	15.85
		1917	930,855	50,058	18.50

## WINTER WHEAT.

No	Crop District	Year	Bushels	Acreage	Yield per Acre
1	Medicine Hat .....	1916	58,506	3,903	14.99
		1917	53,361	2,601	21.00
2	Warner .....	1916	.....	.....	.....
		1917	22,878	1,116	20.50
3	Cardston .....	1916	60,880	3,620	16.82
		1917	58,149	3,132	19.00
4	Pincher Creek .....	1916	92,220	2,767	33.33
		1917	47,709	2,187	22.00
5	Macleod .....	1916	31,350	1,045	30.00
		1917	3,870	189	20.50
6	Claresholm .....	1916	4,746	116	41.70
		1917	105,165	5,130	20.50
7	Nanton .....	1916	5,264	191	27.56
		1917	3,870	189	21.00
8	Little Bow .....	1916	5,627	331	17.00
		1917	.....	.....	.....
9	Taber .....	1916	38,337	859	44.63
		1917	32,472	1,584	21.00
10	Redcliff .....	1916	8,767	361	24.27
		1917	51,840	2,529	21.09
11	Bow Valley .....	1916	.....	.....	.....
		1917	184	9	20.50
12	Gleichen .....	1916	.....	.....	.....
		1917	20,475	999	21.15
13	High River .....	1916	4,955	219	22.63
		1917	2,214	108	20.50
14	Okotoks .....	1916	2,167	103	21.04
		1917	549	27	20.05
15	Rocky Mountain .....	1916	24,960	755	33.06
		1917	24,840	2,754	9.54
16	Calgary .....	1916	45,135	885	51.00
		1917	.....	.....	.....
17	Cochrane .....	1916	2,393	130	18.41
		1917	.....	.....	.....
18	Didsbury .....	1916	5,469	269	20.33
		1917	1,287	63	20.50
19	Hand Hills .....	1916	275	11	26.25
		1917	108,117	5,274	20.50
20	Acadia .....	1916	9,505	565	17.00
		1917	60,147	2,934	20.00
21	Coronation .....	1916	2,700	150	18.80
		1917	165,861	8,091	21.00
22	Stettler .....	1916	2,016	80	25.20
		1917	20,664	1,008	20.50
23	Olds .....	1916	6,903	531	13.00
		1917	7,380	360	20.50
24	Innisfail .....	1916	1,104	68	16.24
		1917	3,213	288	11.25
25	Red Deer .....	1916	2,527	361	7.00
		1917	2,520	63	40.00
26	Lacombe .....	1916	2,051	100	20.51
		1917	4,977	243	21.00
27	Ponoka .....	1916	2,176	100	21.76
		1917	3,132	153	20.50
28	Wetaskiwin .....	1916	.....	.....	.....
		1917	2,214	108	20.50
29	Camrose .....	1916	418	22	19.00
		1917	22,878	1,116	20.50
30	Sedgewick .....	1916	.....	.....	.....
		1917	27,486	1,341	21.00

## WINTER WHEAT—(Continued).

No.	Crop District	Year	Bushels	Acreage	Yield per Acre
31	Ribstone .....	1916	.....	.....	.....
		1917	2,214	108	20.50
32	Wainwright .....	1916	13,611	577	23.89
		1917	8,118	396	20.50
33	Alexandra .....	1916	.....	.....	.....
		1917	549	27	20.01
34	Vermilion .....	1916	216	10	21.64
		1917	16,605	810	20.50
35	Vegreville .....	1916	.....	.....	.....
		1917	16,236	792	20.50
36	South Edmonton .....	1916	126	6	21.00
		1917	549	27	20.05
37	Leduc .....	1916	534	25	21.34
		1917	1,107	54	20.50
38	Stony Plain .....	1916	.....	.....	.....
		1917	6,453	315	21.00
39	Edson .....	1916	.....	.....	.....
		1917	.....	.....	.....
40	Lac Ste Anne .....	1916	.....	.....	.....
		1917	2,025	99	20.50
41	Pembina .....	1916	.....	.....	.....
		1917	2,394	117	20.50
42	St. Albert .....	1916	.....	.....	.....
		1917	7,929	387	21.00
43	Sturgeon .....	1916	87	5	17.49
		1917	4,977	243	20.50
44	Victoria .....	1916	.....	.....	.....
		1917	32,103	1,566	20.50
45	Whitford .....	1916	.....	.....	.....
		1917	54,054	2,637	20.50
46	Beaver River .....	1916	.....	.....	.....
		1917	2,952	144	20.50
47	St. Paul .....	1916	.....	.....	.....
		1917	1,107	54	20.50
48	Clearwater .....	1916	.....	.....	.....
		1917	.....	.....	.....
49	Athabasca .....	1916	249	12	19.95
		1917	.....	.....	.....
50	Grouard .....	1916	.....	.....	.....
		1917	76	26	3.02
51	Peace River .....	1916	4,536	100	45.36
		1917	6,273	306	18.50

## OATS.

No	Crop District	Year	Bushels	Acreage	Yield per Acre
1	Medicine Hat .....	1916	765,801	16,637	46.03
		1917	16,312,860	479,790	34.15
2	Warner .....	1916	542,569	9,919	54.70
		1917	1,575,900	46,350	34.00
3	Cardston .....	1916	518,019	10,672	48.54
		1917	1,545,912	45,468	34.00
4	Pincher Creek .....	1916	311,777	7,049	44.23
		1917	179,532	6,489	28.15
5	Macleod .....	1916	418,112	9,052	46.19
		1917	337,068	12,798	26.00
6	Claresholm .....	1916	757,879	14,645	51.75
		1917	1,076,760	28,800	37.50
7	Nanton .....	1916	1,365,970	29,294	47.21
		1917	918,918	29,970	31.00
8	Little Bow .....	1916	1,286,828	25,511	52.50
		1917	747,054	30,357	25.00
9	Taber .....	1916	1,967,349	36,731	55.06
		1917	1,597,752	68,841	23.00
10	Redcliff .....	1916	1,160,269	25,344	45.78
		1917	1,954,116	57,474	34.00
11	Bow Valley .....	1916	1,139,908	15,907	71.85
		1917	765,513	28,116	27.00
12	Gleichen .....	1916	5,129,277	87,506	58.65
		1917	1,027,677	72,063	20.00
13	High River .....	1916	3,342,870	67,431	49.56
		1917	2,072,385	67,761	31.15
14	Okotoks .....	1916	1,320,475	62,552	21.11
		1917	3,418,407	92,673	37.00
15	Rocky Mountain .....	1916	80,036	1,819	44.00
		1917	477,054	14,031	34.00
16	Calgary .....	1916	76,625	5,750	53.30
		1917	.....	.....	.....
17	Cochrane .....	1916	923,011	18,658	49.47
		1917	1,200,969	27,297	44.25
18	Didsbury .....	1916	3,438,136	78,728	43.29
		1917	3,142,215	83,349	38.05
19	Hand Hills .....	1916	1,850,814	45,338	41.00
		1917	2,533,635	124,524	20.15
20	Acadia .....	1916	1,199,562	28,561	42.00
		1917	1,767,348	80,334	22.00
21	Coronation .....	1916	3,409,759	50,418	67.65
		1917	1,608,984	94,194	17.08
22	Stettler .....	1916	2,086,776	50,823	41.04
		1917	2,863,323	105,804	27.00
23	Olds .....	1916	1,917,758	45,794	44.28
		1917	1,928,592	61,974	31.00
24	Innisfail .....	1916	1,055,364	28,370	37.20
		1917	1,652,560	47,484	35.15
25	Red Deer .....	1916	450,360	15,237	36.12
		1917	742,491	22,761	33.05
26	Lacombe .....	1916	1,355,546	35,014	39.00
		1917	1,451,754	43,713	33.15
27	Ponoka .....	1916	1,027,310	25,946	35.74
		1917	1,203,462	37,602	32.00
28	Wetaskiwin .....	1916	971,954	27,691	38.10
		1917	1,242,513	37,611	33.24
29	Camrose .....	1916	2,881,716	75,832	38.00
		1917	2,568,744	117,018	22.02
30	Sedgewick .....	1916	632,702	15,558	41.31
		1917	3,349,134	99,459	34.24

## OATS—(Continued).

No	Crop District	Year	Bushels	Acreage	Yield per Acre
32	Wainwright .....	1917	1,214,046	52,308	23.22
		1916	1,147,990	34,065	33.70
		1917	1,357,263	48,015	28.00
33	Alexandra .....	1916	1,139,122	27,535	41.27
		1917	2,089,197	88,083	21.00
		1916	784,489	22,945	34.99
34	Vermilion .....	1917	1,711,251	74,763	23.50
		1916	2,051,838	46,958	43.68
		1917	1,786,293	86,571	21.25
35	Vegreville .....	1916	474,254	12,151	39.03
		1917	340,038	13,788	25.05
		1916	1,046,394	25,978	40.28
36	South Edmonton .....	1917	767,835	32,778	23.50
		1916	819,120	20,478	40.00
		1917	1,105,047	33,804	33.15
37	Leduc .....	1916	10,000	250	40.00
		1917	.....	.....	.....
		1916	366,244	10,734	34.12
38	Stony Plain .....	1917	672,381	26,703	25.00
		1916	587,421	14,966	41.95
		1917	1,081,647	32,310	34.95
39	Pembina .....	1916	971,416	16,127	47.84
		1917	444,690	23,913	19.00
		1916	1,515,213	36,476	41.54
40	Sturgeon .....	1917	3,262,734	100,557	32.50
		1916	1,195,583	30,782	38.84
		1917	1,940,976	72,864	23.50
41	Victoria .....	1916	875,165	21,101	36.45
		1917	1,272,555	49,218	26.34
42	Whitford .....	1916	213,782	7,624	28.17
		1917	2,111,706	62,109	20.50
		1916	303,301	10,141	30.50
43	Beaver River .....	1917	922,545	34,281	27.20
		1916	38,428	1,033	37.20
		1917	.....	.....	.....
44	St. Paul .....	1916	140,057	4,489	31.20
		1917	278,766	9,837	28.50
		1916	92,560	2,288	40.45
45	Grouard .....	1917	621,207	8,181	76.00
		1916	756,421	17,994	36.48
		1917	1,783,359	53,073	34.00
46	Peace River .....	1916	394,244	7,447	52.94
		1917	.....	.....	.....
		1916	211,857	2,882	80.45
47	Lethbridge .....	1917	.....	.....	.....
		1916	.....	.....	.....
		1917	.....	.....	.....
48	Indian Reserves .....	1916	.....	.....	.....
		1917	.....	.....	.....
		1917	.....	.....	.....

## BARLEY.

No	Crop District	Year	Bushels	Acreage	Yield per Acre
1	Medicine Hat .....	1916	62,965	2,668	23.60
		1917	98,010	4,455	22.00
2	Warner .....	1916	78,600	2,500	31.44
		1917	182,358	8,289	22.05
3	Cardston .....	1916	115,334	3,512	32.84
		1917	205,164	15,921	13.15
4	Pincher Creek .....	1916	76,482	1,977	38.18
		1917	19,006	1,188	20.02
5	Macleod .....	1916	15,949	439	36.33
		1917	19,620	1,224	16.25
6	Claresholm .....	1916	62,856	1,800	34.92
		1917	107,379	4,716	23.09
7	Nanton .....	1916	86,313	2,843	30.36
		1917	15,543	2,781	6.00
8	Little Bow .....	1916	173,902	4,524	38.44
		1917	46,080	2,340	20.00
9	Taber .....	1916	253,624	4,232	59.93
		1917	105,255	8,235	13.15
10	Redcliff .....	1916	69,204	2,258	30.87
		1917	140,580	6,390	22.50
11	Bow Valley .....	1916	70,316	2,094	33.58
		1917	27,045	2,088	13.00
12	Gleichen .....	1916	507,779	15,099	33.63
		1917	664,245	32,346	21.08
13	High River .....	1916	186,461	5,574	33.47
		1917	112,140	5,805	19.50
14	Okotoks .....	1916	110,321	3,795	29.07
		1917	413,055	18,108	23.29
15	Rocky Mountain .....	1916	3,720	100	37.20
		1917	66,132	3,006	22.25
16	Calgary .....	1916	36,007	1,179	30.54
		1917	.....	.....	.....
17	Cochrane .....	1916	199,648	6,239	32.00
		1917	288,630	10,494	28.24
18	Didsbury .....	1916	514,779	17,751	29.00
		1917	765,990	24,669	31.00
19	Hand Hills .....	1916	269,906	5,978	45.15
		1917	114,165	6,183	18.50
20	Acadia .....	1916	76,440	2,800	27.30
		1917	181,764	8,262	22.02
21	Coronation .....	1916	93,047	3,787	24.57
		1917	84,528	6,390	13.29
22	Stettler .....	1916	404,896	12,653	32.00
		1917	315,324	16,785	19.02
	Olds .....	1916	209,000	8,360	25.00
		1917	192,870	8,163	24.38
23	Innisfail .....	1916	200,231	7,146	28.02
		1917	268,740	11,133	24.00
24	Red Deer .....	1916	167,853	7,578	22.15
		1917	136,701	4,833	28.00
25	Lacombe .....	1916	406,150	15,388	26.48
		1917	286,740	12,051	24.08
26	Ponoka .....	1916	233,138	5,536	44.10
		1917	279,882	11,961	23.00
27	Wetaskiwin .....	1916	197,191	8,623	23.10
		1917	264,546	11,808	22.40
28	Camrose .....	1916	313,248	12,048	26.00
		1917	320,463	16,794	19.00
29	Sedgewick .....	1916	410,670	15,210	27.00
		1917	201,366	10,404	19.28



## BARLEY—(Continued).

No	Crop District	Year	Bushels	Acreage	Yield per Acre
31	Ribstone .....	1916	134,309	5,935	22.63
		1917	70,578	4,842	15.00
32	Wainwright .....	1916	147,113	6,868	21.42
		1917	51,318	4,149	12.15
33	Alexandra .....	1916	118,927	5,288	22.49
		1917	231,120	11,241	21.00
34	Vermilion .....	1916	169,162	7,868	21.50
		1917	153,612	10,584	14.50
35	Vegreville .....	1916	191,252	7,656	24.85
		1917	219,186	9,963	22.24
36	South Edmonton .....	1916	109,922	3,522	31.21
		1917	64,917	3,744	17.00
37	Leduc .....	1916	241,178	9,832	24.53
		1917	187,920	9,486	20.15
38	Stony Plain .....	1916	156,663	5,747	27.26
		1917	406,404	16,668	24.50
39	Edson .....	1916	27,000	1,000	27.00
		1917	.....	.....	.....
40	Lac Ste. Anne .....	1916	65,183	3,152	20.68
		1917	173,844	7,902	22.00
41	Pembina .....	1916	48,433	4,411	10.98
		1917	208,611	9,018	23.00
42	St. Albert .....	1916	181,433	5,352	33.90
		1917	239,769	8,271	29.05
43	Sturgeon .....	1916	315,834	9,757	32.37
		1917	733,437	29,529	25.25
44	Victoria .....	1916	441,218	15,514	28.44
		1917	627,462	28,521	22.00
45	Whitford .....	1916	280,483	10,935	25.65
		1917	332,838	15,129	22.24
46	Beaver River .....	1916	43,866	2,144	20.46
		1917	248,886	11,313	22.00
47	St. Paul .....	1916	54,136	2,692	20.11
		1917	91,584	4,311	21.50
48	Clearwater .....	1916	31,562	1,314	24.02
		1917	.....	.....	.....
49	Athabasca .....	1916	17,399	749	23.23
		1917	61,074	2,304	26.50
50	Grouard .....	1916	7,859	425	18.58
		1917	45,333	1,512	21.00
51	Peace River .....	1916	68,123	3,272	20.82
		1917	108,387	6,426	17.00

## FLAX.

No	Crop District	Year	Bushels	Acreage	Yield per Acre
1	Medicine Hat .....	1916	80,915	6,172	13.11
		1917	77,184	20,583	4.00
2	Warner .....	1916	34,599	2,153	16.07
		1917	90,594	18,351	5.25
3	Cardston .....	1916	7,441	410	18.15
		1917	21,393	2,403	9.00
4	Pincher Creek .....	1916	6,356	763	8.85
		1917	.....	.....	.....
5	Macleod .....	1916	3,745	176	21.28
		1917	5,787	1,593	4.28
6	Claresholm .....	1916	5,604	600	9.34
		1917	26,010	1,728	15.00
7	Nanton .....	1916	2,166	145	14.23
		1917	6,111	873	7.14
8	Little Bow .....	1916	38,665	2,198	17.55
		1917	20,322	7,281	3.15
9	Taber .....	1916	103,896	2,761	14.00
		1917	167,418	27,657	7.00
10	Redcliff .....	1916	77,871	7,570	10.30
		1917	129,528	18,504	7.25
11	Bow Valley .....	1916	9,604	975	9.55
		1917	16,110	3,438	5.00
12	Gleichen .....	1916	44,954	3,124	14.39
		1917	23,301	3,051	8.24
13	High River .....	1916	2,470	203	12.17
		1917	22,932	3,276	7.00
14	Okotoks .....	1916	1,389	133	10.44
		1917	7,560	1,080	7.18
15	Rocky Mountain .....	1916	.....	.....	.....
		1917	756	108	7.00
16	Calgary .....	1916	160	8	20.00
		1917	.....	.....	.....
17	Cochranè .....	1916	11,001	977	11.26
		1917	2,115	117	18.00
18	Didsbury .....	1916	1,515	101	15.00
		1917	6,804	972	7.25
19	Hand Hills .....	1916	41,540	4,154	10.00
		1917	41,724	7,902	6.00
20	Acadia .....	1916	46,620	5,371	8.68
		1917	33,534	10,998	3.46
21	Coronation .....	1916	20,151	2,239	9.00
		1917	23,121	3,303	7.28
22	Stettler .....	1916	984	123	8.00
		1917	3,843	549	7.34
23	Olds .....	1916	1,452	110	13.20
		1917	693	99	7.09
24	Innisfail .....	1916	67	6	11.25
		1917	1,008	144	7.00
25	Red Deer .....	1916	60	4	15.00
		1917	63	9	7.00
26	Lacombe .....	1916	483	43	11.23
		1917	8,883	1,269	7.00
27	Ponoka .....	1916	.....	.....	.....
		1917	63	9	7.00
28	Wainwright .....	1916	.....	.....	.....
		1917	1,071	153	7.00
29	Camrose .....	1916	6,578	572	11.50
		1917	243	99	3.04
30	Sedgewick .....	1916	872	109	8.00
		1917	720	90	8.00

## FLAX—(Continued).

No.	Crop District	Year	Bushels	Acreage	Yield per Acre
31	Ribstone .....	1916	8,870	710	12.50
		1917	8,064	1,152	7.00
32	Wainwright .....	1916	1,377	311	4.43
		1917	1,710	153	11.00
33	Alexandra .....	1916	1,300	100	13.00
		1917	2,331	333	7.00
34	Vermilion .....	1916	14	7	2.00
		1917	693	99	7.00
35	Vegreville .....	1916	2,002	275	6.93
		1917	2,259	108	21.00
36	South Edmonton .....	1916	24	3	17.00
		1917	252	36	7.00
37	Leduc .....	1916	1,050	105	10.00
		1917	1,701	243	7.00
38	Stony Plain .....	1916	.....	.....	.....
		1917	1,260	180	7.00
39	Edson .....	1916	.....	.....	.....
		1917	.....	.....	.....
40	Lac Ste. Anne .....	1916	50	4	12.50
		1917	1,071	153	7.00
41	Pembina .....	1916	87	3	28.00
		1917	126	18	7.00
42	St. Albert .....	1916	44	3	14.00
		1917	117	18	6.50
43	Sturgeon .....	1916	39	3	13.00
		1917	2,331	333	7.00
44	Victoria .....	1916	147	14	10.00
		1917	3,402	486	7.00
45	Whitford .....	1916	.....	.....	.....
		1917	567	36	16.00
46	Beaver River .....	1916	.....	.....	.....
		1917	.....	.....	.....
47	St. Paul .....	1916	.....	.....	.....
		1917	567	81	7.00
48	Clearwater .....	1916	.....	.....	.....
		1917	.....	.....	.....
49	Athabasca .....	1916	.....	.....	.....
		1917	3,951	513	11.00
50	Grouard .....	1916	.....	.....	.....
		1917	189	27	7.00
51	Peace River .....	1916	2,000	200	16.17
		1917	4,257	558	8.01

## RYE.

No	Crop District	Year	Bushels	Acreage	Yield per Acre
1	Medicine Hat .....	1916	10,403	516	20.15
		1917	60,147	2,889	21.00
2	Warner .....	1916	12,304	554	22.21
		1917	11,853	1,215	19.05
3	Cardston .....	1916	5,262	158	32.67
		1917	.....	.....	.....
4	Pincher Creek .....	1916	130	5	20.00
		1917	3,600	90	40.00
5	Macleod .....	1916	913	51	17.90
		1917	3,132	153	21.00
6	Clareholm .....	1916	1,553	82	18.94
		1917	3,915	117	34.00
7	Nanton .....	1916	7,511	203	35.20
		1917	9,225	450	20.50
8	Little Bow .....	1916	7,288	200	36.44
		1917	6,300	2,520	3.00
9	Taber .....	1916	6,335	82	77.26
		1917	2,079	126	16.50
10	Redcliff .....	1916	2,822	53	35.24
		1917	14,625	1,107	13.00
11	Bow Valley .....	1916	167	5	33.35
		1917	16,110	3,438	15.00
12	Gleichen .....	1916	4,646	175	26.55
		1917	20,232	927	21.00
13	High River .....	1916	7,221	350	20.69
		1917	19,368	945	20.50
14	Okotoks .....	1916	9,223	343	26.89
		1917	18,630	1,125	17.29
15	Rocky Mountain .....	1916	.....	.....	.....
		1917	.....	.....	.....
16	Calgary .....	1916	526	52	10.12
		1917	.....	.....	.....
17	Cochrane .....	1916	4,327	205	21.11
		1917	20,196	855	24.00
18	Didsbury .....	1916	31,152	1,416	22.00
		1917	28,701	1,161	25.00
19	Hand Hills .....	1916	8,748	324	27.00
		1917	17,712	864	20.50
20	Acadia .....	1916	12,447	675	18.44
		1917	6,129	837	7.00
21	Coronation .....	1916	2,153	113	19.05
		1917	13,653	666	20.50
22	Stettler .....	1916	10,327	605	17.07
		1917	10,872	621	17.04
23	Olds .....	1916	4,008	375	10.69
		1917	23,796	1,161	21.00
24	Innisfail .....	1916	2,534	144	17.60
		1917	7,983	333	24.05
25	Red Deer .....	1916	3,387	161	21.04
		1917	7,011	342	21.00
26	Lacombe .....	1916	7,232	535	13.52
		1917	20,664	1,008	20.50
27	Ponoka .....	1916	4,820	482	10.00
		1917	12,186	828	15.00
28	Wetaskiwin .....	1916	2,960	185	16.00
		1917	4,968	603	8.00
29	Camrose .....	1916	1,460	73	20.00
		1917	5,346	261	21.02
30	Sedgewick .....	1916	6,912	256	27.00
		1917	11,760	720	21.25

## RYE—(Continued).

No	Crop District	Year	Bushels	Acreage	Yield per Acre
31	Ribstone .....	1916	3,890	313	12.43
		1917	20,475	999	20.50
32	Wainwright .....	1916	6,476	264	24.53
		1917	6,615	954	7.36
33	Alexandra .....	1916	841	74	11.36
		1917	6,453	315	20.00
34	Vermilion .....	1916	912	57	16.00
		1917	3,600	117	31.00
35	Vegreville .....	1916	1,275	75	17.00
		1917	972	153	6.50
36	South Edmonton .....	1916	260	13	20.00
		1917	675	27	25.00
37	Leduc .....	1916	8,060	403	20.00
		1917	188	9	20.50
38	Stony Plain .....	1916	704	60	11.73
		1917	9,036	441	21.00
39	Edson .....	1916	.....	.....	.....
		1917	.....	.....	.....
40	Lac Ste. Anne .....	1916	135	14	91.66
		1917	6,822	333	21.20
41	Pembina .....	1916	287	8	33.00
		1917	5,715	279	21.22
42	St. Albert .....	1916	.....	.....	.....
		1917	2,124	216	10.19
43	Sturgeon .....	1916	1,596	80	19.04
		1917	1,575	414	4.00
44	Victoria .....	1916	6,735	246	26.08
		1917	6,822	333	21.15
45	Whitford .....	1916	294	18	16.90
		1917	1,323	234	5.09
46	Beaver River .....	1916	1,106	64	7.28
		1917	2,178	108	20.00
47	St. Paul .....	1916	535	28	19.11
		1917	46,674	2,277	20.50
48	Clearwater .....	1916	.....	.....	.....
		1917	.....	.....	.....
49	Athabasca .....	1916	525	34	15.46
		1917	2,574	234	8.00
50	Grouard .....	1916	.....	.....	.....
		1917	5,166	252	20.50
51	Peace River .....	1916	100	5	20.00
		1917	450	72	6.50

## REPORT OF THE PUBLICITY COMMISSIONER

SIR,—I beg to submit herewith the annual report of the Publicity Branch of the Department for the year 1917:

### ALBERTA'S POPULATION INCREASED 32½ PER CENT.

The population of Alberta recorded, as of date June 1, 1916, numbered 496,525, as compared with 374,663 in 1911, and 185,412 in 1906, according to figures of the Census Office, Ottawa, just published. For the five years 1911-1916 the population increased 121,862, or more than 32.5 per cent., as compared with an increase of 189,251, or 102.07 per cent. for the five years 1906-1911. From 1901 to 1906 the increase was 112,390 or 153.91 per cent. In the ten-year period 1906-1916 the population increased by 311,113 or 167.8 per cent., as compared with an increase of 301,641 in the ten years 1901 to 1911. The number of persons per square mile was 1.96 in 1916 as against 1.45 in 1911.

The population (496,525) comprised 277,256 males and 219,269 females, as compared with 223,989 males and 150,674 females in a population of 374,663 in 1911. In 1901 males outnumbered females by 9,016; in 1906 by 31,154; in 1911 by 73,315 and in 1916 by 57,987. In 1916 there were 126 males to every 100 females, as compared with a ratio of 149 in 1911, 140 in 1906, and 128 in 1901. For the Province as a whole, from 1906 to 1911, the male population increased by 106.86 per cent., and the female by 95.35 per cent., as compared with an increase of 23.78 and 45.53 per cent. respectively for the five-year period 1911-1916. In Alberta as well as in the other western provinces, the effects of the war are apparent in the smaller increase in the male population in the last quinquennium as compared with previous ones.

### IMMIGRATION.

According to the report of the Department of the Interior, for the year ending March 31, 1917, the destination by provinces of immigrants arriving by ocean ports and from the United States were as follows:

	Via Ocean Ports	From United States	Totals
Maritime Provinces .....	1,668	4,042	5,710
Quebec .....	2,432	8,498	10,930
Ontario .....	4,928	21,150	26,078
Manitoba .....	1,197	4,050	5,247
Saskatchewan .....	1,219	8,655	9,874
Alberta .....	4,034	11,384	12,418
British Columbia .....	1,505	3,297	4,802
Yukon Territory .....	2	313	315

Notwithstanding the continuation of war conditions, immigration of United States farmers into Alberta is greater than at any time in the last four years. During the first ten months of the present year immigration returns show 100 per cent. increase and 200 per cent. more than 1915 figures.

## HOMESTEAD ENTRIES.

During the year 3,978 homesteads, 272 pre-emptions and 93 purchased homestead entries were made in Alberta, as follows:

	Homesteads	Pre-emptions	Purchased
Medicine Hat .....	311	151	34
Lethbridge .....	100	23	7
Calgary .....	295	75	30
Red Deer .....	187	23	19
Edmonton .....	1,626		3
High Prairie .....	111		
Peace River .....	448		
Grande Prairie .....	900		

These figures show that Alberta has received more than her proportionate share of settlers this year, and from the increased number of enquiries received during the past month a still greater number may be expected during the coming year. The splendid success of our farming operations during the past three years has created a great interest in our Province.

Thousands of real farmers have been attracted by the results obtained from our land, and the great success of our live stock operations. Nothing but war conditions prevent a great rush of settlers into our Province. At the present time land values are stronger and sales have been more frequent, especially in the wheat districts, than ever before.

## TORONTO EXHIBITION.

We were again represented at the Toronto Exhibition this year and again awarded the Gold Medal for our agricultural exhibit. The "Toronto Globe" in an article describing the various exhibits had the following complimentary statements in regard to our exhibit: "Alberta is the bright spot in the exhibits in the Government Building. Alberta's contribution to the exhibition is not all contained in the magnificent display shown in the buildings. In the show rings, the breeders of live stock are prominent with some of the best prize-winners, for it must be remembered that for beef and dairy cattle and horses, Alberta holds a leading place."

We received great praise for our exhibit from many prominent men and leading agriculturists. Its special features led the Directors of the Windsor Fairs to petition our Minister and obtain his consent to have it transferred to their exhibition which was held at the close of the Toronto Exhibition. Thousands of Americans from Michigan and other States visited our exhibit at Windsor and evidenced great interest in our natural resources. We expect, and are already receiving, very practical results from this display.

## STATISTICS.

In our previous report we expressed the hope of being able to arrange for a closer co-operation with the Dominion Statistician's office. We are now glad to announce that arrangements have been completed whereby our reports will in future be identical with those of the Dominion Census Office, and the information hereafter, will be given out simultaneously.

In accomplishing this we received the added assistance and co-operation, this year, of the school teachers throughout the Province, particularly in securing detailed data from our farmers in regard to grain and live-stock.

There is, we are pleased to state, a growing interest in every detail of our production from year to year, and as the value of our land depends very largely upon the reports of its agricultural output, we are extremely anxious to obtain the energetic and further co-operation of all concerned.

#### FARM LABOUR.

The problem of farm labour presented great difficulties again this year. A shortage of labour throughout the whole West became apparent early in the year when the Federal authorities were appealed to in order that men might be assisted from the East and the United States for work on the farms of the West. Our department entered into an agreement with the Federal Government to pay one half the transportation charges for farm labourers from the United States, the Federal Government paying balance of rate. Through this arrangement we obtained 2,051 labourers at a cost to us of \$3,812.00 for transportation.

We also supplemented the efforts of the Dominion Government officials by sending four special Commissioners into the Western States to secure farm help and settlers. Our efforts were very successful, and we were able to supply fairly well all demands for farm help during the year.

Wages, however, ranged high—from forty to seventy-five dollars per month and from three to four and five dollars per day for harvest help. Many farmers, consequently, were barred from hiring men and others had to reduce their summer fallow work considerably.

We were granted the special privilege of the Railway Companies of distributing farm help during the month of May, at the reduced rate of one cent per mile within the Province, from the three cities, viz., Edmonton, Calgary and Lethbridge.

During the period the following number of certificates was issued:

Edmonton .....	2,762
Calgary .....	916
Lethbridge .....	374

In addition to the certificates issued, we believe that the number distributed to nearby points within the radius for the minimum charges was as follows:

Edmonton .....	200
Calgary .....	300
Lethbridge .....	300

Total distribution about 4,800 from local points and 2,000 ticketed direct from United States points.

During the harvest season, special rates were again granted by the Railways and the following certificates were issued to harvest help:

Edmonton .....	2,000
Calgary .....	1,914
Lethbridge .....	400
— Total 4,714	



In addition, we estimate the following were sent to nearby points within the radius for the minimum charges:

Edmonton .....	200
Calgary .....	500
Lethbridge .....	600
—— Total 1,300	

Total distributed for harvest labour 6,014.

We also received a large number of men who took advantage of the low rates offered by the Railway Companies from the Eastern Provinces, many of whom went to farmers direct and a large percentage have since remained to become permanent settlers.

Respectfully submitted,

CHARLES S. HOTCHKISS,

*Chief Publicity Commissioner.*

## *REPORT OF PROVINCIAL SANITARY ENGINEER*

SIR.—I beg to submit the Eleventh Annual Report of the Provincial Sanitary Engineering Branch of the Department.

The head of the branch is the Sanitary Engineer, and as in all the more recently formed health departments in the United States, there is included in this branch all the Sanitary engineering work of the Provincial Government. The Provincial Sanitary Engineer is a member of the Provincial Board of Health; he acts as technical advisor to the Provincial Board as required by order-in-council in 1907; examines all plans and specifications submitted for the approval of the Provincial Board of Health; personally investigates on the site of the works every application for the certificate of the Provincial Board for waterworks, sewerage and sewage disposal works; after personal investigation and scientific analysis of the plans and specifications, including estimate of cost, submits personally to the Board every application, and thereafter issues the certificate of the Provincial Board, or otherwise, as required.

During the past five years, the average annual amount of money involved in the work specified in those plans and specifications for which certificates of the Provincial Board of Health were issued, was almost two million dollars. There were, of course, many plans and specifications besides these for which certificates were not issued, some preliminary plans, etc., besides many plans which required the approval of the Sanitary Engineer only.

The Sanitary Engineer is available at all times at the headquarters of the Government for interview by municipal officers and others applying for certificates and advice in connection with proposed sanitary engineering works. This is one of his most important duties.

He supervises all matters in connection with sanitary drainage, refuse collection, pollution of waters, plumbing, offensive trades, dairies, etc., secures water and sewage effluents for analysis; co-operates with the laboratory in the interpreting of the results of the analyses and gives advice as to remedies when such is deemed necessary. He acts as a consultant for local Boards of Health on general public health and sanitation matters; examines all plans for new hospitals, as required under The Hospital Ordinance, and inspects the construction, operation and maintenance of existing hospitals; supervises the sanitation of all health districts throughout the Province; investigates epidemics of typhoid fever in co-operation with the medical branch; advises the Public Works department as to the design, construction, operation and maintenance of its Sanitary Engineering works, and also inspects all public institutions on behalf of that department.

He supplies the Public Utilities Commission with the expert advice required by it when dealing with applications from local authorities for permission to raise money by way of debentures, or upon the security of stock in connection with proposed Sanitary Engineering works, including supervision with regard to the amount of money that is proposed to

be spent by the local authorities in connection with the construction, alteration or extension of any such proposed works, and as to the actual necessity for any such proposed construction, alteration or extensions.

There have been submitted to the Provincial Board of Health during the year 1917, seven sets of plans and specifications for waterworks, sewerage and sewage disposal works, for which certificates have been issued; several necessary sets of plans and specifications preliminary to these; two under consideration; a few sets of plans and specifications for miscellaneous works for which the approval of the Provincial Sanitary Engineer alone is required.

The following is a detailed list of the works for which certificates have been issued by the board, together with the estimated cost of each:

#### WATERWORKS AND WATER PURIFICATION.

##### *Medicine Hat—*

Certificate No. 122—Extension to waterworks; estimated cost .....	\$ 2,393.00
Certificate No. 127—Extension to high pressure water system; estimated cost .....	3,713.35

##### *Redcliff—*

Certificate No. 123—Waterworks replacement; estimated cost .....	3,180.00
Certificate No. 124—Water mains addition; estimated cost .....	10,193.15
Certificate No. 125—Waterworks addition; estimated cost .....	19,934.10

#### SEWERAGE AND SEWAGE DISPOSAL.

##### *Edmonton—*

Certificate No. 126—Extension to sewerage system; estimated cost .....	15,749.05
(Constructed in 1916)	

#### DRAINAGE.

##### *Penoka—*

Certificate No. 19A—Drainage system; estimated cost ..	4,767.00
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#### APPLICATIONS UNDER CONSIDERATION.

##### *Calgary—*

Waterworks Reservoir extension; estimated cost .....	191,000.00
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##### *Vegeville—*

Waterworks well addition; estimated cost .....	
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In connection with water supplies, sewerage and sewage disposal, refuse disposal drainage, sanitation and other sanitary engineering works, investigation of complaints and other miscellaneous matters, also in giving still further assistance to the medical part of the Board's work on account of the absence of three of our medical men at the war and one other who has gone into private practice, the writer visited over sixty towns and cities and in some cases the surrounding districts also, as circumstances required.

During the year, there has been put on by the Technical Institute, Calgary, courses of instruction in sanitary, food and meat inspection. The military authorities are having several returned soldiers take these courses with a view to having them placed in positions with public health authorities throughout the Dominion. The course is one suited to prepare the men for the examination for the various diplomas of the Royal Sanitary Institute, and this Institute has appointed an Examining Board for the Province of Alberta, composed of Alberta professional men interested in public health. The Provincial Sanitary Engineer is president of the Board of Examiners.

The present status of the various cities and towns is briefly outlined in the following synopsis of their annual reports:

#### EDMONTON.

Edmonton has a population of 53,794 (Dominion Census, 1916). There is a municipal engineer and staff, consisting of departments for drainage, roadways, bridges and miscellaneous construction. The water supply is municipally owned and is obtained from the Saskatchewan River. The source is capable of affording an ample supply. The method of production is by means of pumps.

There are two intakes consisting of steel pipes provided with screens and protected by cribbing of special design. There are 165 miles of water mains, 10,798 house services, 3,202 (approximately) houses without services. Five million gallons of water are supplied per day. There are 1,799 stop valves, 787 hydrants and 14 animal fountains and 5 hygienic. Ten watermen deliver water in wagons. The city has a modern mechanical filtration plant. Use is made of the Provincial Laboratory for the testing of water.

The procedure is: low-lift pumps deliver water to sedimentation basin where it is coagulated by sulphate of alumina, thence through 12 Roberts filters to a clear water reservoir from which it is pumped by high-lift pumps to the city. Liquid chlorine is added before the water enters the high-lift pumps.

The sewerage system is on the partly combined and partly separate plan, about 8 per cent. separate and 92 per cent. combined. There are 152 miles of sewers, which are ventilated at the manholes and vertical soil stacks. There are 9,585 house services. At the present time there are eight gravity sewage outfalls. It is proposed to collect these into about three. It is estimated that the Swift Canadian Co. discharges 100,000 gallons per day of their trade waste water through their sewer to the river. This sewer is now inside the city limits and practically forms part of the city system. Messrs. P. Burns & Co. discharge 40,000 gallons per day of their trade waste water into the city system. Messrs. Gainers discharge 15,000 gallons per day into the city system.

Gaugings taken on the three main outfalls on the north side and the other outfalls estimated, show an extreme dry weather flow of 2,000,000 gallons per day. Sewage from the outfalls east of 92nd street and north of 120A avenue is treated in a septic tank. Sewage from 101st street outfall is treated partly by the "Activated Sludge" process and partly by sedimentation and sterilization. Analysis of the effluent from the "Activated Sludge" process shows that with 1.76 cubic feet of air at 70 degrees F. per

gallon of sewage, blown for four hours into the raw incoming sewage, a reduction of 99 per cent. in bacteria is obtained and a reduction of 98 per cent. in solids.

The city employs a plumbing inspector and staff. There is a Heenan and Froud refuse destructor on the south side and a DeCarey on the north side. Both are closed down at present. The first town downstream is Fort Saskatchewan, 20 miles distance by river.

#### CALGARY.

Calgary has an estimated population of 65,000. There is a municipal engineer with staff. The water supply is municipally owned and operated. There are two sources of supply, the Bow and Elbow rivers, and they afford an ample supply. The water from both sources is chlorinated. The catchment area of the Elbow river is patrolled. The land in the area of this river is principally grazing. The supply from this source is obtained by gravity and the supply from the Bow by pumping.

There are two intakes: that on the Bow river is a compound flume or reinforced concrete leading to pumps 600 feet distant. There are two pumps each of  $7\frac{1}{2}$  million gallons capacity—one Booster pump, 5 million gallons capacity, under ordinary conditions pumping is 3 million gallons. On the Elbow river, the intake is of timber at the river bank. The gravity main is 30 in. wooden stave pipe, starting from a point 12 miles west of Calgary, and ending at the inlet to the service reservoir inside the city limits. Large extensions are now being made on the site of this reservoir.

There are 194 miles of water mains, and 13 miles of gravity mains, 13,361 house services and about 500 houses supplied from standpipes. A total of eleven million imperial gallons of water is supplied daily. There are 1,080 hydrants and 7 drinking fountains. Purification or rather sterilization is carried out by means of Wallace and Tiernan chlorination, one machine for each of the two intakes. These are automatic and supply chlorine gas to the water in quantities as required. There is a municipal laboratory where the water is regularly analyzed chemically and bacterially.

The sewerage system is mainly a combined one, the portion that is on the separate system will be extended later on. There are 194 miles of sewers, ventilated at every house service, and surface drainage of 6 2-3 miles. There are 9,085 house services and 1,521 catch basin connections, the latter are untrapped for gas. There are at present ten outfall sewers into the Bow and Elbow rivers to the east of the city. These will ultimately be reduced to one main outfall by intercepting sewers. The outfalls are by gravity. Packing plants and other trades deliver their waste into the sewers without any preliminary treatment. There is no treatment of sewage at present, but experiments are now being carried out with a view to the installation of the "Activated Sludge" process. A site for sewage disposal works has been secured. All interceptors will be ultimately connected up with the 6 foot diameter trunk sewer and through it will discharge at the proposed works at Bonnybrook. Ogden, an outlying part of Calgary, has a sewerage system of its own, with separate 24 in. diameter outfall and a separate site for a disposal plant but no works have as yet been constructed. Offensive trade factories at present discharge about 5,000 gallons per day into the city system. The total sewage discharged from the entire city system amounts to about 10 million gallons per day.

There is a plumbing inspector in the employ of the city.

The traps used are of the syphon variety, the systems are mostly back vented. The installation of main drain traps is not general at all, but is rather confined to the larger blocks. In an attempt to prevent the top of the vertical soil stack from becoming frozen over during very low temperatures in winter, the tops of the soil stacks are finished off very close to the roof.

There are two refuse destructors, one in the east and one in the west end. The destructors are of the Hennan and Froud pattern. One has a capacity of 75 tons in 24 hours, and the other 50 tons. As a war measure, these are not now in operation, dumps being adopted instead. There are 62 miles of sanitary permanent pavements.

The municipal gas supply is natural and is obtained from Bow Island.

#### MEDICINE HAT.

Medicine Hat has a population of 10,000. It has a municipal engineer and staff, consisting of an assistant engineer, draughtsmen, etc.

The water supply is municipally owned. Its source is the South Saskatchewan river, which affords an ample supply. The method of production of water is by means of low lift pumps to filters and high lift pumps to reservoir and standpipe. The reservoir has a capacity of two and three-quarter million gallons, and the standpipe of half a million gallons. From these the water gravitates to the city.

There is an intake from the river consisting of 30-inch cast iron pipe with a concrete pier in the river and a 20 foot diameter well on the river bank, in which is located low lift pump suction. There are 35.6 miles of water mains and 2,561 house services. Two and a third million gallons of water are supplied per day, the industrial consumption being large. There are 208 hydrants and six fountains. There is a modern mechanical filtration plant of the New York Continental Jewell Filtration Co.'s type. The operation of this plant is conducted along the best lines, observations are very carefully taken and preserved by being plotted in curves for ready reference. Every feature of the workings is carefully tabulated with a view to aiding in the solution of possible future difficulties. The plant consists of four sedimentation basins, capacity six million gallons per day with three hours' sedimentation; six sand filters, mechanical gravity type, capacity one million gallons per day each. Samples of water are sent to the Provincial Laboratory monthly for chemical and bacterial analysis.

The sewerage system is on a separate plan. There are 27.3 miles of sanitary sewers and 8.37 miles of storm sewers. The former are ventilated through manhole covers and vertical soil stacks. The manholes are approximately 83 yards apart. There are approximately 2,100 house services. There are 458 catch basin connections on the storm water system. The three sewage outfalls discharge into the South Saskatchewan River. Each outfall has a pumping station, for the purpose of discharging the sewage during high water. At present, the sewage is not being treated. The first town downstream from Medicine Hat is Saskatoon, situated at an estimated distance of 600 miles by river.

The town employs a plumbing inspector.

In order to prevent the vapor from the vertical soil stack in buildings from freezing during very low temperatures in winter, the diameter before passing through the roof is increased 2 in. The pipe terminals are also kept as low to the roof as possible.

The gas supply is municipally owned. There are 48 miles of high and low pressure gas mains and 2,465 house services. The gas is natural and the analysis shows: Methane, 99.49; Hydrogen, 0.51; Oxygen, a trace; moisture, none; B.T.U., 1050.

#### WETASKIWIN.

Wetaskiwin had a population of 3,500 in 1913. There is a municipal engineer in the employ of the town.

The water supply is municipally owned and operated; it is obtained from three wells each about 240 feet in depth. The supply is ample. The method of production is by means of pumping by compressed air to an underground concrete reservoir, thence to an elevated water tower, the capacity of which is 277,000 gallons.

There is a domestic pressure of 65 lbs. per square inch, and a fire pressure of 90 to 100 lbs. per square inch. There are  $6\frac{1}{4}$  miles of water mains, 268 house services, and about 300 houses without a service. 100,000 imperial gallons are supplied per day. There are 65 stop valves and 51 hydrants.

The sewerage system is on the combined plan. There are 6.4 miles of city sewers and 3.5 miles of outfall sewer. The sewers are ventilated at the manholes and at the tops of the vertical soil stacks. There are 267 house services and 17 catch basin connections. There is one gravity outfall  $3\frac{1}{2}$  miles from the city. 120,000 imperial gallons of sewage are discharged per day. The sewage is treated at the outfall on live earth beds and the effluent disinfected.

There is no permanent paving, the streets being well graded and level.

The city has a natural gas supply municipally owned. The gas is used mainly for the purpose of the city power house.

The analysis is as follows:—Carbon Dioxide, 0.00; Oxygen, 0.14; Methane, 98.55; Nitrogen, 1.41; B.T.U., 975.

#### RED DEER.

Red Deer has a population of 3,000. The municipal engineering is done by a local civil engineer.

The city has a public water supply obtained from the Red Deer River and the supply is ample. The production is by means of pumps. There is one intake consisting of an 18 inch gravity flow pipe to two wells 18 feet in diameter and 20 feet deep. These wells have filtration walls of cinders and are used alternately. The intake pipe is run to the centre of the deepest part of the river and is protected with cribs. There are seven miles of water mains and 312 house services. The city does not operate the pumping system. There are 35 hydrants and two fountains. The water is examined both bacterially and chemically several times each year.

The sewerage system is on the combined plan. There are five miles of sewers, 219 house services and 50 catch basins. The sewers are ventilated at the manholes. The sewage is discharged raw into the Red Deer River below East Avenue. The discharge is by gravity. The nearest town downstream is Drumheller.

#### REDCLIFF.

Redcliff has a population of 2,500. The water supply is municipally owned and is obtained by infiltration from the South Saskatchewan River. The supply is ample and the method of production is by means of pumps. There are  $15\frac{1}{2}$  miles of water mains, 400 house services and 20 houses without service. 62,000 gallons are supplied per day. There are 106 stop valves and 48 hydrants. The water is strained by passing through a natural bed of gravel before it reaches the well. The town is supplied with natural gas from a private company. There are 16 miles of gas mains and 430 house services. There is no sewerage system.

#### CAMROSE.

Camrose has a population of 2,100. There is a Power House engineer who gives attention to the other engineering work of the town. The water supply is municipally owned and operated. The source is three wells 130 feet deep, they afford ample supply. The method of production is by means of forcing the water by compressed air into a reservoir, thence by means of centrifugal pumps to a water tower. There are  $3\frac{1}{2}$  miles of water mains, and 120 house services. 50,000 gallons of water are supplied per day. There are 28 stop valves and 35 hydrants. There is one water wagon in use. The sewerage system is on a separate plan. There are  $1\frac{1}{2}$  miles of sewers and 120 house services. There is one gravity sewage outfall. Forty-five thousand gallons of sewage are discharged per day. The sewage is treated to live earth beds and the effluent is disinfected by means of bleaching powder. The plant is situated on the town limits and the discharge is into the Stony Creek. The town is considering the question of blowing air at 70 degrees F. into the sewage in the beds. The result would be similar to that obtained by the Activated Sludge process.

#### ATHABASCA.

Athabasca has a population of 500. The water supply is municipally owned and operated. The source of supply is that of the Athabasca River and the method of production is by means of pumping.

There is one intake from the river consisting of two 8 inch lines of steel pipe to a suction well, four miles of water mains, 12 house services. The system is used for fire protection at present. There are 22 stop valves and 18 hydrants. Filtration is by means of rapid mechanical sand filters of the Roberts type. The quantity supplied per day is about 10,000 gallons. There is one water wagon in use. The first town upstream is Fort Cornwall, 75 miles distant. There is no sewerage system. There is one mile of gas mains owned by the town. The gas is used for street lighting only.

#### BASSANO.

Bassano has a population of 1,000. There is a municipal engineer in the employ of the town. The water supply is municipally owned and operated. Its source is Lake Shaughnessy on the Bow River and the



supply is ample. Production is by means of pumping to a standpipe. There is one tunnel intake through which the water gravitates to a deep well from which it is pumped to a standpipe. There are  $5\frac{1}{2}$  miles of water mains, 94 house services and 300 houses without service; 40,000 imperial gallons are supplied per day to the residents and 100,000 gallons to the Canadian Pacific Railway. The first town up-stream from the intake is Calgary, 85 miles distant. The water is taken from the Canadian Pacific dam, which acts as a very large sedimentation basin for the waters of the Bow at this point. Notwithstanding this fact it is quite possible that the water may be at times rendered unsafe for domestic purposes by the sewage discharged untreated from the Calgary sewers.

The matter of the treatment of the Calgary sewage has been discussed with Calgary on several occasions. At a meeting in October of this year, the Calgary City Council passed the following resolution:

"That this Council assure the town of Bassano that the first money by-law to be submitted to the ratepayers of the city covering capital expenditure will be to provide for the installation of a sewage disposal plant."

Bassano replied to this resolution by a resolution of its council as follows:

"That in view of the repeated promises made by His Worship Mayor Costello, and the Calgary City Council, the aforesaid council be notified that upon a by-law being submitted to and passed by the ratepayers of the city of Calgary authorizing the construction of a sewage disposal plant, this council will re-consider its proposed injunction proceedings."

We appreciate the town's position in this matter and hope to see before long an efficient disposal plant installed at Calgary.

The sewerage system is on the combined plan. There are  $4\frac{1}{2}$  miles of sewers, 92 house services and 11 catch basin connections. There is one gravity sewage outfall discharging into a disposal works, two and one-quarter miles from town. The effluent from this works is disposed of on land. An incinerator is situated in the north-west portion of the town.

#### CLARESHOLM.

Claresholm has a population of 1,000. The water supply is municipally owned and operated. It is taken from Willow Creek and the supply is ample. The water percolates through a filter gallery from which it gravitates to the town and is there pumped to standpipe. There are about 10 miles of water mains, including the main from the intake works, and 180 house services. Fifty thousand gallons are supplied per day; one water wagon is used to deliver water to those having no service connections. There is no town up-stream from the intake. There are 40 stop-valves and 27 hydrants.

The town is supplied with natural gas by a private company.

#### HIGH RIVER.

High River has a population of 1,300. The water supply is municipally owned and operated; the supply is from the Highwood River and is ample. The production is by means of pumping. The water infiltrates to a cemented wall, the rate of capacity is 600 gallons per minute. There are  $2\frac{1}{4}$  miles of water mains, 140 house services and 40 hydrants. Fifteen thousand gallons are supplied per day.

The sewerage system is on the separate plan. There is half a mile of sewers and 12 house services. There is one outfall sewer discharging raw sewage into the Little Bow River east of the town. The first town down-stream is Carmangay, situated 40 miles distant.

#### LACOMBE.

Lacombe has a population of 1,100. The water supply is obtained from a deep well, which is municipally owned and operated. The water is pumped into a 12,000 gallon tank and is then conveyed around the town in a wagon tank and sold to the citizens by the barrel. There is one water wagon.

The town has a storm drain used for surface water only.

A large number of residents have private wells with power pump and septic tanks.

#### COLEMAN.

Coleman has a population of 1,555. The water supply is privately owned. It is taken from a stream. There are two miles of water mains and seven hydrants. There are 225 house services from the mains.

#### CORONATION.

Coronation has a population of 600. The water supply is owned and operated by the town. The source is a deep well and affords an ample supply. The method of production is by means of pumps. There is one mile of water mains, 35 house services and about 100 houses without a laid in service. Six thousand gallons are supplied daily. There are five stop valves and eight hydrants. There is one water wagon used for the delivery of water.

#### CARMANGAY.

Carmangay has a population of 400. The water system is owned and operated by the town. Its source is the Little Bow River. The method of production is by means of pumping. The water is chlorinated.

#### STETTLER.

Stettler has a population of 1,200. The water system is owned and operated by the town. The source is deep wells. The water is pumped in a tank of 40,000 gallons capacity and thence gravitates to town. There is also a storage reservoir of 50,000 gallons capacity. There are three miles of water mains and ninety house services.

#### LAMONT.

Lamont has a population of 260. No public water supply. A private system of sewerage is in use by a few of the residents.

All the reports that have come to hand to date from the municipalities are included in this report.

Respectfully submitted,

R. B. OWENS, B.A., B.E.,

*Provincial Sanitary Engineer.*

## REPORT OF THE DIRECTOR OF THE PROVINCIAL LABORATORY

DR. H. M. TORY.

PRESIDENT, UNIVERSITY OF ALBERTA.

*Edmonton, Alberta.*

SIR,—I have the honor to submit the following report of the work of the Provincial Laboratory for the year 1917.

The Provincial Laboratory carries out most of the technical work of the Government in public health, medico-legal investigations, diseases of animals and miscellaneous examinations.

Public health investigations relate to the diagnosis of some communicable diseases, the examination of water samples and analysis of food including milk.

During 1917 examinations were made for the diagnosis of diphtheria, typhoid fever and pulmonary tuberculosis as shown in the following table:

### SPECIMENS EXAMINED FOR THE DIAGNOSIS OF COMMUNICABLE DISEASES.

DISEASE	No. of Specimens	Results		Specimens Sent From		Number of Specimens Received Each Month				Total
		Pos've	Neg've	No. of Phys'ns	No. of P. O's	Month	Spu'm	Diph.	Typ'd	
Pulmonary Tuberculosis . . . .	398	100	298	157	84	Jan.	31	42	7	80
						Feb.	30	38	4	72
						Mar.	39	81	15	135
						Apr.	38	63	16	117
Diphtheria . . . . .	400	73	327			May	50	36	12	98
						June	45	23	5	73
						July	31	18	4	53
						Aug.	23	8	8	39
						Sept.	23	8	6	37
Typhoid Fever . . . . .	110	29	81			Oct.	21	33	17	71
						Nov.	40	37	7	84
						Dec.	27	13	9	49
Total . . . . .	908	202	706	157	84		398	400	110	908

During the past year there were 398 specimens of sputum examined, of these 100 were positive. A table has been prepared comparing the clinical diagnosis of the condition with the laboratory findings, and is as follows:

MONTHS	Neg. Result with positive diag.	Pos. Result with diag. other than T. B.	Pos. Result with Pos. diag.	Pos. Result with no diag.	Neg. Result with diag. other than T. B.	Neg. Result with no diag.
January .....	5	..	0	10	1	15
February .....	6	..	1	4	4	16
March .....	6	..	3	5	8	17
April .....	4	..	3	4	8	19
May .....	9	..	1	8	7	25
June .....	8	..	3	7	9	17
July .....	1	..	5	7	4	14
August .....	7	..	1	2	4	9
September .....	3	..	4	2	3	12
October .....	3	..	3	8	1	6
November .....	6	..	6	7	2	19
December .....	1	..	3	3	2	17
Total .....	59	..	33	67	53	186

In 1917 there were 400 throat swabs sent in for examination. Seventy-three of these were positive.

Anti-typhoid Vaccine for the inoculation of the troops has been prepared during the last three years for the Militia Department of Canada. One hundred and thirty-six thousand doses have so far been supplied. During the past one and one half years the Department of Bacteriology has been supplying the necessary vaccine for the Provinces of Saskatchewan, Alberta and British Columbia. This is a mixed vaccine containing the typhoid, paratyphoid (A) and paratyphoid (B) bacilli and is made from the strain of the organism supplied by the Royal Army Medical Corps.

There were 46 samples of milk examined. Many other samples were received but were unsuitable for examination. Many of these specimens were sour on arrival and many others were received in dirty containers so that any examination would be valueless.

Samples of mother's milk to the number of 47 were examined during the year. These were done for the purpose of advising physicians when breast feeding was not satisfactory for an infant.

There were 508 samples of water analysed bacteriologically to ascertain its suitability for domestic purposes. The City of Lethbridge established a laboratory for the examination of its drinking water during the year 1917. Mr. Vallance, who spent some time in the laboratory has charge of the work.

For the City of Edmonton 98 bacteriological examinations were made on samples from the experimental plant for the disposal of sewage.

Miscellaneous examinations to the number of 123 were carried out during the year. These were of various natures, some of which might be mentioned:—Examination of dogs' brains for rabies, examination of fowl for tuberculosis and other diseases, bacteriological examination of canned fruits, urine examinations, etc.

It seems necessary to again call attention to a number of irregularities in the sending of specimens to the Laboratory. These irregularities, 113 of which were recorded during the year, were of different characters. During a period of two months twelve samples of water were sent to the Laboratory presumably for analysis but there was no information given by which the sender could be identified. All waters for bacteriological examination must be sent in packed in ice, special containers for which are supplied by the Laboratory. Bulletins and circulars have been repeatedly sent out to Medical Health Officers and others who have to do with the sanitary condition of the Province, stating how these specimens should be sent. Notwithstanding this specimens of all characters are constantly being received and are unsuitable for examination. Where special outfits for the transmission of water samples have been sent on request, in many cases great difficulty has been experienced in getting them returned so that the regular work of the Laboratory is sometimes interrupted.

During the year 846 outfits for the sending in of throat swabs for diphtheria, sputum for tuberculosis and blood for typhoid fever tests were sent out to our distributing stations in the Province.

#### SPECIAL WORK.

The Director, at the request of the Provincial Board of Health, made an investigation of a typhoid epidemic in the village of Delia in April, and in May visited Lac La Biche for the purpose of finding out the sanitary conditions of the various fish stations situated on the lake.

Special work was done on blood stains and attendance at court at Peace River, Edmonton and Wetaskiwin.

The following chemical examinations were made by Mr. J. A. Kelso, Director of Industrial Laboratories and Analyst of the Provincial Laboratory:

Water Analyses .....	184 samples
Mineral Water .....	4 "
Liquor Analyses (Beer, etc.) .....	490 "
Cider .....	5 "
Milk .....	19 "
Oil Analyses complete, for Department of Public Works .....	12 "
Examinations for drugs as morphine, cocaine, knock-out drops, etc. ....	37 "
Amyl Alcohol .....	1 "
Laudanum .....	1 "
Complete Analyses of extracts, Lemon, Vanilla, Ginger, etc., re Standard for Liquor Order-in-Council .....	24 "
Determination of Alcohol in Extracts .....	56 "
Boiler Water for Department of Public Works re Ponoka treatment plant .....	4 "
Gasoline .....	2 "
Sand complete re Filtering Plant .....	1 "
Water Scale .....	7 "
Food Products such as Meat, Sausages, etc. ....	18 "
Vinegar .....	4 "
Samples Tested for Poisons, human and animal organs, meat, etc. ....	51 "
Jam .....	3 "
Miscellaneous .....	46 "
Consultations .....	
Court Attendance .....	

These comprise to a great extent examinations carried on in assisting the Department of the Attorney General in criminal and liquor license branches.

The water examinations include waters from towns and cities, and from farmers throughout the Province to ascertain the suitability for domestic supply.

A great deal of consulting chemical work was also done by Mr. Kelso in connection with public health, legal cases and industrial results. He had also to be present in many court cases in various parts of the Province.

I have the honor to be,

Sir,

Your obedient servant,

HEBER C. JAMIESON.

## REPORT OF THE PROVINCIAL MEDICAL OFFICER OF HEALTH AND DEPUTY REGISTRAR GENERAL

SIR,—I wish herewith to submit the report of the Public Health Branch of the Department of Agriculture.

The Public Health Branch was, late in the year, transferred to the Provincial Secretary's department, and in future, reports will be issued under that department.

This Branch, on account of the war, is still short of experienced help and as the war needs at the front are most pressing, the Board thought they should endeavor to do the best they could with their limited help, employing local medical men when necessary to supplement the Provincial staff, rather than, as far as possible, ask for men needed at the front. This, of course, meant that the Chief Medical Health Officer had to be absent from the office quite frequently on account of calls throughout the Province that in non-war times would have been attended to by others. However, in spite of limited experienced officers, I am able to report that the health of the Province is quite up to the average and compares well on the whole with that of other recent years.

Typhoid fever showed a marked lessening over recent previous years, while on the other hand, smallpox of a mild type has been more prevalent than for some time. Several of the original cases of smallpox were reported as coming from the United States, and the spread was due to the fact that the disease was mild and so was either concealed or not recognized as smallpox.

Many matters have come before the Board that have required the exercise of patience and diplomacy to adjust to the satisfaction of those concerned, but we are glad to report that said adjustments have been made in all cases.

Our one Health Film of last year was approved by the public, and we hope to be able to enlarge this feature of educating the people along the Public Health lines.

The following is a synopsis of the work of the Provincial Board for 1917 in respect to infectious diseases:

STATISTICAL TABLE.

DISEASES	Within Municipalities	Outside Municipalities	Total 1917	Total 1916
Scarlet fever .....	170	25	195	119
Typhoid fever .....	119	8	127	308
Diphtheria .....	214	37	251	218
Smallpox .....	154	61	215	8
Chickenpox .....	1218	19	1227	920
Measles .....	1692	100	1792	3553
Whooping Cough ....	390	16	406	563
Mumps .....	898	...	898	195
Tuberculosis .....	101	25	126	174
Infantile Paralysis ..	2	...	2	19
Other diseases .....	173	13	186	83

*Scarlet Fever.*—In 1916 there were 119 cases, and in 1917, 195 reported. This is somewhat of an increase over last year, but is still well within the average of recent years, as in 1915 there were 194 cases, and taking it over the whole Province this is fairly satisfactory for this disease, which is so serious even in mild cases on account of its complications.

*Diphtheria.*—In 1917 there were 251 cases and 218 in 1916. This shows a slight increase over 1916, but there have been no great epidemics in any particular place, and when it has broken out it has been promptly controlled by the use of antitoxin and other measures.

*Typhoid Fever.*—In 1917 there were 127 cases, and this compared with 308 cases in 1916 and 284 in 1915, is a most gratifying decrease; and one particularly gratifying feature is that all the cities have been remarkably free of this disease, and the cases which have occurred have been in the smaller towns and villages or in the country districts; and while in one or two instances, considering the size of the place, the epidemic has been of a serious nature, still prompt and proper measures soon checked the trouble.

*Smallpox.*—During the year 1917 there have been reported to us 195 cases. This, when compared with only eight cases in 1916, and 72 in 1915, is a very large increase, and as stated in preliminary remarks, many of the original cases came in from the United States, and were often either mis-diagnosed at first (being mistaken for chickenpox), as the original cases were often so mild that the family or doctor never thought of the possibility of smallpox until serious cases arose and the disease had spread owing to carelessness. In some cases its mildness led to concealment and subsequent spread. I might say that a warning in respect to this has been sent out to all doctors to be on the lookout for this mild type, for while the disease in most cases was mild, it had progressed in some cases to a fatal termination. The cases occurred almost wholly in the non-vaccinated and where the vaccinated occasionally took it, the disease was very mild. Successful vaccination is the remedy for the eradication of this disease. I might say that the sending out of the warning was a means of drawing the doctor's attention more closely to a re-diagnosis in some of his cases, with the effect that in some instances where the doctor had originally diagnosed chickenpox, he changed it to smallpox, and subsequent events bore out the fact that his second diagnosis was the correct one.

*Chickenpox.*—There has been quite an increase in chickenpox over 1916, as in that year there were only 920 cases, while in 1917 there were 1,237.

*Measles.*—There has been a reduction in the number of cases of measles. In 1916 there were 3,553 and in 1917 only 1,792 reported. Unfortunately, measles and chickenpox are still recognized by the laity as trifling diseases, and many mothers even wilfully expose their children to these diseases, saying that they must have them and the sooner the better. This is very fatal reasoning, as statistical reports in the United States and other countries show that measles and chickenpox through their complications kill more than any other two diseases, so these should be treated in any way other than trifling.



*Infantile Paralysis.*—We are glad to report a minimum number of cases, as only four were reported, while in 1916 there were 19. We are very glad that this crippling disease did not manifest itself to any extent in the Province during last year.

*Tuberculosis.*—In 1916 there were 174 cases reported and 126 cases in 1917. This is quite a reduction, but in this connection I might say that we are quite convinced that many cases of tuberculosis are not reported, but the proportionate reporting would likely be much the same this year as last, so it would seem that there is a hope that the disease is lessening in the Province, but if all cases could be collected this hopeful assumption might not be the correct one, and in any event tuberculosis is a disease that must be actively and strenuously combatted by education and by sanitarium and home supervision, and we believe it is the intention to erect in the near future a large sanitarium in which Alberta patients will be received.

One reason, no doubt, why Alberta shows a larger number of tuberculosis cases than it is entitled to, is that it has quite a reputation for having a good climate for tuberculosis, so that in addition to our own population, we have no doubt that each year some imports of this disease come here for the purpose of recovery. We know this to be a fact, as in some cases the Health Officer of another Province or state has notified us to that effect.

*Whooping Cough.*—Shows somewhat of a lessening over 1916, as in that year there were 563 cases and in 1917 only 406.

*Mumps.*—In 1916, 195 cases and in 1917 there were 898 reported.

*Other Diseases.*—There were 83 cases in 1916 and 186 in 1917.

Last year we reported that the local Boards in most places were taking more interest in sanitation and other branches of Public Health, and this interest still seems to be increasing in many places and the local Boards seem desirous of seeing that these towns are kept in a more sanitary and healthful condition. We have had a great many inquiries from towns, rural municipalities, etc., and as far as possible, when requested, one of our officers has personally visited these places and taken the matter up, and in instances where we could not go personally, we have helped them out as far as possible by giving advice by correspondence.

*Hospitals.*—Forty-two hospitals received the government grant of 25 cents per patient per day last year, the total sum paid being \$88,109.75, during the year. Four new hospitals applied for the grant, namely, Foremost, Bassano, Innisfail, the Creighton Hospital at Stettler, and Beverly; and after inspection they were recommended for the grant. However, Beverly was closed before any returns were made.

*Incurables.*—\$7,285.75 was expended on the keep of incurables in the Providence General Hospital at Daysland and in the Medicine Hat General Hospital.

*Destitutes.*—\$10,741.25 was expended on destitutes. This includes destitute and aged people kept at Lacombe Home, Midnapore, and expenditure for the burial of destitutes.

Appended hereto are the reports of the inspectors, Dr. J. D. Lafferty and A. D. Lamont:

#### DR. LAFFERTY'S REPORT.

I beg to submit the following report for the year ending December 31, 1917.

Smallpox is the only serious and prevalent infectious disease that I have been called on to deal with in the southern half of the Province during the past year. It involves very often the closing of schools for considerable periods as it usually attacks unvaccinated children. It may be slow to spread and in the majority of cases produces very little sickness or illness to occasion the keeping of the children away from school. While in the great majority of cases when confined to children, it is a mild disease, when it attacks adults and especially those who have never been vaccinated, it takes on a very much more serious form and becomes a matter of much more serious import.

The trouble in dealing with the disease is the great similarity between smallpox in the mild form in which it largely prevails in children and young people, and chickenpox, and in the difficulty in distinguishing between them, and the hesitancy sometimes on the part of medical men to make a diagnosis of smallpox (which is such a mild infection in the majority of cases). In the course of my work I visited the following places:

#### *In connection with Smallpox.*

Bow Island .....	Feb. 9, Mar. 1.
Goose Lake, S.D. ....	April 20.
Glenmore S.D. ....	March 19-23, 25, 26, 29, 30, April 3, 5, 6, 9.
Raymond .....	April 25.
Capebar S.D. ....	May 30.
Magrath .....	June 8.
Chappell S.D. ....	June 23, 25.
Banff .....	July 14.
Delroy .....	October 10.
Cardston .....	November 13, 22.
High River .....	November 20.
Olds .....	December 15.
Didsbury .....	December 21.
Lacombe .....	December 27.

#### *In connection with Measles.*

Redcliff .....	January 24, February 1.
Warner .....	February 5.
Milk River .....	February 5.
Macleod .....	February 9.

#### *In connection with Scarlet Fever.*

Exshaw .....	June 20.
Banff .....	July 4.

#### *In connection with Tuberculosis.*

Penhold .....	July 8.
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#### *In connection with Destitution.*

Hillcrest .....	February 14.
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*In connection with Sanitation.*

Oyen .....	May 8.
Pincher Creek .....	May 23.
Frank .....	July 21.

*Inspection of Hospitals.*

High River .....	February 12, July 30.
Macleod .....	January 28.
Pincher Creek .....	February 16, August 2.
Lethbridge .....	February 18, July 19.
Medicine Hat .....	February 28.
Calgary .....	January 20, 26, August 11.

J. D. LAFFERTY, M.D.,

*Medical Inspector of Health.*

## MR. A. D. LAMONT'S REPORT.

The following places were visited in connection with Sanitation, Investigating Applications for Relief and Inspecting Hospitals:

*Sanitation.*

Westlock .....	May 21-22.
Clyde .....	May 23.
Athabasca .....	May 24, 25.
Calgary .....	June 11 and 15.
Irricana .....	June 11.
Bassano .....	June 12.
Standard .....	June 12.
Hussar .....	June 13.
Gleichen .....	June 14.
Lacombe .....	September 13.
Consort .....	September 14-15.
Edson .....	September 17.
Coalspur .....	September 18.
Lovett .....	September 18.
Yellowhead .....	September 19.
Oliphant & Munson .....	September 19.
Mountain Park .....	September 20-23.
Red Deer .....	September 26-27.
Monitor .....	September 28-29.
Westlock and Eunice .....	October 2-4.
Sangudo .....	November 14.

*Application for Relief.*

Mannville .....	January 26.
Vegreville .....	May 28-30, June 28-29.
St. Paul .....	May 29.
Morinville .....	May 31.
Innisfail .....	June 4.
Kevisville .....	June 5-6.
Olds .....	June 16.
Sundre .....	June 16, 18, 19 and November 27.
Edmonton .....	December 6.

*Hospitals Inspected.*

Edmonton .....	January 12, 15, 16, 17, 18, 23, 27, 28, 29, July 9, 10, 11, 12, 18, 19, 20.
Onoway .....	January 13.
Lamont .....	January 24, July 16.

Pakan .....	January 25, July 17.
Lacombe .....	January 30.
Castor .....	January 31.
Olds .....	February 1, 16, July 6.
Red Deer .....	July 25.
Nordegg .....	July 27, 28.
Innisfail .....	November 15, 16.

(Sgd.) A. D. LAMONT,  
*Inspector of Health.*

All of which is respectfully submitted,

T. J. NORMAN,  
*Provincial Medical Officer of Health.*

### ANNUAL REPORT, 1917, VITAL STATISTICS.

SIR,—The following report of the Registrar General's Department for the year 1917, enumerates and classifies the number of Births, Marriages and Deaths which were registered with the Department as having occurred during that year.

The Births numbered 13,576, comprising 6,989 males and 6,587 females. This is an increase of 245 over the preceding year. It is regrettable, however, that there is a steady decline in the births of children born of British parents, caused doubtless by the large numbers of this nationality who went overseas. There is an increased number of births of children of foreign parentage.

The marriages totalled 4,270, being an increase of 40 over the year 1916. Here again, however, there was a very large decrease in the number of marriages of people of British birth, no doubt also attributable to their presence at the war. There were 40 brides under the age of 16 and 47 grooms and brides over the age of 60.

The number of deaths which occurred during 1917, was 4,047, a decrease of 11 over the year 1916. The number of children who died before reaching the age of one year was 1,186, being 21 less than the preceding year. This number constitutes 87.3 per 1,000 of the births and although less than last year is still a high rate of mortality. Pneumonia still holds first place as a cause of death, the number dying of this disease being 340. Tuberculosis of the lungs is a close second, accounting for 283. There were 325 stillbirths recorded as against 305 last year, an increase of 20.

## REGISTRATIONS BY ELECTORAL DISTRICTS FOR THE YEAR 1917.

## BIRTHS.

Electoral Districts	Male	Female	Total
Acadia .....	128	118	246
Alexandra .....	55	59	114
Athabasca .....	59	67	126
Beaver River .....	126	104	230
Bow Valley .....	54	43	97
Calgary North (exclusive of city) ..	5	0	5
Calgary South (exclusive of city) ..	1	0	1
Camrose .....	146	141	287
Cardston .....	61	67	128
Claresholm .....	44	36	80
Clearwater .....	13	19	32
Cochrane .....	20	39	69
Coronation .....	146	155	301
Didsbury .....	136	119	255
Edmonton South .....	24	28	52
Edson .....	66	53	119
Gleichen .....	74	70	144
Grouard .....	47	58	105
Hand Hills .....	160	154	314
High River .....	61	52	113
Innisfail .....	60	39	99
Lacombe .....	92	70	162
Lac Ste. Anne .....	50	53	103
Leduc .....	133	115	248
Lethbridge District .....	33	35	68
Little Bow .....	89	86	175
Macleod .....	37	53	90
Medicine Hat District .....	111	106	217
Nanton .....	24	42	76
Okotoks .....	18	23	41
Olds .....	95	68	163
Peace River .....	75	67	142
Pembina .....	49	49	98
Pincher Creek .....	38	37	75
Ponoka .....	55	52	107
Redcliff .....	118	132	250
Red Deer .....	95	79	174
Ribstone .....	120	103	223
Rocky Mountain .....	143	116	259
St. Albert .....	67	61	128
St. Paul .....	135	128	263
Sedgewick .....	160	131	291
Stettler .....	144	136	280
Stony Plain .....	71	67	138
Sturgeon .....	146	138	284
Taber .....	145	136	281
Vegreville .....	215	204	419
Vermilion .....	188	193	381
Victoria .....	137	122	259
Wainwright .....	78	90	168
Warner .....	38	30	68
Wetaskiwin .....	56	53	109
Whitford .....	253	265	518
Calgary City .....	1,053	1,014	2,067
Edmonton City .....	812	737	1,549
Lethbridge City .....	167	166	333
Medicine Hat City .....	243	209	452
Totals .....	6,989	6,587	13,576

## REGISTRATIONS BY ELECTORAL DISTRICTS 1917, BY MONTHS.

## BIRTHS.

Electoral Districts	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Acadia .....	17	18	26	29	27	10	23	18	20	20	22	16	246
Alexandra .....	8	11	11	7	17	13	11	17	4	5	3	7	114
Athabasca .....	8	7	10	20	17	7	14	11	2	11	4	15	126
Beaver River .....	18	25	23	25	14	8	12	15	21	27	21	21	230
Bow Valley .....	7	7	10	5	5	6	11	9	9	3	17	8	97
Calgary North .....	0	2	0	1	0	0	0	0	1	1	0	0	5
Calgary South .....	0	0	0	0	0	0	0	1	0	0	0	0	1
Camrose .....	15	31	28	38	24	24	24	28	19	20	22	14	287
Cardston .....	13	5	11	14	16	10	14	12	8	5	16	4	128
Claresholm .....	9	7	4	4	6	5	3	5	6	12	11	8	80
Clearwater .....	2	3	6	0	4	3	1	3	2	3	4	1	32
Cochrane .....	6	1	6	7	8	7	8	6	6	7	4	3	69
Coronation .....	38	25	28	24	22	23	18	33	20	24	19	27	301
Didsbury .....	13	26	28	22	20	23	20	13	28	20	23	19	255
Edmonton S. ....	3	3	8	4	1	3	7	2	3	9	4	5	52
Edson .....	7	12	13	11	7	6	9	5	8	17	13	11	119
Gleichen .....	15	11	10	17	8	16	15	17	12	10	6	7	144
Grouard .....	12	11	18	5	5	7	12	5	4	9	7	10	105
Hand Hills .....	33	29	21	23	16	29	31	23	33	28	24	24	314
High River .....	5	9	9	15	16	11	3	9	12	8	6	10	113
Innisfail .....	12	14	11	5	12	7	10	8	4	6	9	1	99
Lacombe .....	18	15	18	15	11	15	15	14	9	10	13	9	162
Lac Ste. Anne .....	11	8	10	8	13	7	10	5	10	8	6	7	103
Leduc .....	19	14	24	27	16	15	29	27	13	18	23	23	248
Lethbridge Dis. ....	9	5	9	5	4	5	4	7	6	5	4	5	68
Little Bow .....	16	10	19	3	15	14	15	20	16	16	20	11	175
Macleod .....	8	10	7	5	9	7	2	9	9	9	7	8	90
Med. Hat Dis. ....	29	20	17	24	19	12	15	10	20	14	22	15	217
Nanton .....	6	8	6	6	6	8	6	8	7	4	4	7	76
Okotoks .....	6	4	5	1	4	3	5	3	3	2	2	3	41
Olds .....	13	11	12	15	16	18	15	11	15	11	15	11	163
Peace River .....	17	10	10	10	9	21	14	5	11	9	13	13	142
Pembina .....	4	10	15	9	11	9	6	9	5	8	6	6	98
Pincher Creek .....	5	11	8	2	5	3	3	6	10	10	6	6	75
Ponoka .....	15	5	10	14	9	2	9	6	7	5	12	13	107
Redcliff .....	27	18	15	22	17	20	21	17	20	30	25	18	250
Red Deer .....	17	19	17	13	16	17	15	18	6	15	8	13	174
Ribstone .....	21	13	16	15	19	24	19	24	16	23	15	18	223
Rocky Mt. ....	32	18	25	23	24	17	31	22	14	24	16	13	259
St. Albert .....	5	9	13	9	10	7	9	14	16	10	8	18	128
St. Paul .....	24	15	24	25	28	16	16	24	26	21	22	22	263
Sedgewick .....	20	24	27	23	27	17	23	21	34	25	26	24	291
Stettler .....	28	28	27	24	23	21	37	18	17	20	22	15	280
Stony Plain .....	10	16	17	12	11	12	3	8	9	11	15	14	138
Sturgeon .....	23	18	28	24	21	29	18	14	29	25	25	30	284
Taber .....	31	22	25	31	24	21	26	18	21	15	22	25	281
Vegreville .....	35	30	39	42	43	32	43	31	38	36	29	21	419
Vermilion .....	30	32	33	29	27	29	40	28	30	40	37	26	381
Victoria .....	25	21	22	20	18	18	17	24	24	21	29	20	259
Wainwright .....	13	20	20	16	12	20	14	14	16	5	8	10	168
Warner .....	3	4	4	5	6	6	4	8	8	7	8	5	68
Wetaskiwin .....	9	10	12	9	6	6	11	10	11	11	4	10	109
Whitford .....	51	42	46	54	56	35	33	42	46	36	39	38	518
Calgary City .....	185	152	196	200	194	148	171	166	178	155	152	170	2,067
Edmonton City .....	129	124	148	134	140	127	127	121	114	120	124	141	1,549
Lethbridge City .....	36	20	25	35	31	36	29	20	22	27	30	22	333
Med. Hat City .....	34	38	47	37	39	44	31	37	24	42	41	38	452
Total .....	1245	1091	1277	1222	1184	1059	1132	1079	1082	1093	1093	1059	13,576

BIRTHS BY ELECTORAL DISTRICTS DURING THE YEAR 1917 BY  
NATIONALITY OF PARENTS.

DISTRICTS	Canadian	British	U. S. A.	Foreign	Unknown	Total
Acadia .....	104	46	65	31		246
Alexandra .....	41	28	21	24		114
Athabasca .....	81	10	19	16		126
Beaver River .....	139	3	26	62		230
Bow Valley .....	20	23	31	21		95
Calgary North .....	2	1	1	1		5
Calgary South .....	0	1	0	0		1
Camrose .....	55	20	83	129		287
Cardston .....	22	17	84	5		128
Clareholm .....	17	12	29	22		80
Clearwater .....	16	4	6	6		32
Cochrane .....	27	20	21	1		69
Coronation .....	109	53	69	70		301
Didsbury .....	110	41	68	36		255
Edmonton South .....	19	11	5	17		52
Edson .....	30	36	18	35		119
Gleichen .....	29	39	47	29		144
Grouard .....	86	6	6	7		105
Hand Hills .....	105	68	76	64	1	314
High River .....	43	28	36	6		113
Innisfail .....	38	30	26	5		99
Lacombe .....	48	39	63	12		162
Lac Ste. Anne .....	57	17	13	16		103
Leduc .....	37	6	47	158		248
Lethbridge District .....	8	15	10	35		68
Little Bow .....	58	25	66	26		175
Macleod .....	26	40	8	16		90
Medicine Hat District .....	19	17	52	129		217
Nanton .....	30	17	24	5		76
Okotoks .....	16	15	6	4		41
Olds .....	52	35	41	35		163
Peace River .....	79	15	29	19		142
Pembina .....	36	10	33	19		98
Pincher Creek .....	30	24	15	6		75
Ponoka .....	46	16	30	15		107
Redcliff .....	35	42	50	123		250
Red Deer .....	55	37	39	43		174
Ribstone .....	60	38	64	61		223
Rocky Mountain .....	42	79	12	126		259
St. Albert .....	76	8	20	24		128
St. Paul .....	174	5	29	63	1	272
Sedgewick .....	72	54	82	83		291
Stettler .....	77	58	92	53		280
Stony Plain .....	28	8	11	91		138
Sturgeon .....	30	34	27	184		284
Taber .....	48	63	116	54		281
Vegreville .....	44	25	69	281		419
Vermillion .....	59	42	27	253		381
Victoria .....	44	9	10	190		253
Wainwright .....	60	10	55	15		140
Warner .....	10	6	40	12		68
Wetaskiwin .....	17	6	28	58		109
Whitford .....	18	6	6	488		518
Calgary City .....	658	866	249	294		2,067
Edmonton City .....	522	587	178	262		1,549
Lethbridge City .....	96	128	53	56		333
Medicine Hat City .....	155	125	101	71		452
Totals .....	4,024	3,054	2,521	3,973	1	13,576

## DEPARTMENT OF AGRICULTURE

## MARRIAGES—Country of Origin of Contracting Parties.

Bridegrooms													
Number	BRIDES	English-speaking Countries			Foreign Countries								
		Canada	Britain	U. S. A.	Total	France	Russia	Scandinavia	Austria	Germany	Italy	Others	Total
1426	Canadian Brides married .....	798	204	316	1318	2	36	14	42	8	2	4	108
818	British Brides married .....	209	408	158	775	2	3	23	3	3	4	5	43
1314	U. S. A. Brides married .....	337	122	717	1176	4	24	73	10	14	2	11	138
3558	English-speaking countries (total) .....	1344	734	1191	3269	8	63	110	55	25	8	20	289
32	French Brides married .....	8	2	3	13	11	...	1	...	...	5	2	19
168	Russian Brides married .....	7	2	25	34	...	117	3	5	7	...	2	134
123	Scandinavian Brides married .....	14	3	26	43	1	1	77	1	...	...	...	80
315	Austrian Brides married .....	4	3	6	13	...	12	2	280	4	...	4	302
8	Italian Brides married .....	...	1	...	1	...	...	...	...	...	7	...	7
24	German Brides married .....	6	1	4	11	...	3	2	1	6	1	...	13
42	Others .....	6	4	5	15	1	1	...	2	...	...	23	27
4270	Total .....	1389	750	1260	3399	21	197	195	344	42	21	51	871



## ELECTORAL DISTRICTS

	Sex	Presby	Method	Anglic	Roman	Ruthen	Greek	Greek	Luther	Baptist	Congre	Mormon	Metrist	Mennon	Salvatio	Others	Not Sta	Total
Acadia	M	9	22	12	11					5	1	1				4	1	
	F	11	15	13	11	6				6	2	1				4		63
Alexandra	M	13	5	8	3											2	1	
	F	11	9	8	3											1		33
Athabasca	M	2	4	2	29					3	1							
	F		4	2	22					4	2							34
Beaver River	M		2	2	29				1									32
	F		2	30														
Bow Valley	M	4	4	3	1				1	1							4	
	F	4	6	1	2					2						1	2	18
Calgary North	M									1								1
	F		1															
Calgary South	M	3		1						1								4
	F	2	1	1														
Canrose	M	10	11	8	20	4	1		33	11	2			1				
	F	6	23	4	20	4	1		36	5						5	1	105
Cardston	M	3	1	1	1							26				1	4	
	F	3			1							31				2		37
Chesholm	M	6	7	1					2									
	F	6	6	1					3							1		17
Clearwater	M															1		
	F															1		8
Cochrane	M	4	6	1					1	1							1	
	F	3	5	2					1								1	
Coronation	M	10	13	6	3		1		11	6		4				3	1	14
	F	12	16	5	1		1		11	4		4				2		57

MARRIAGES by Religious Denominations in Electoral Districts, 1917.—(Continued).

		Religious Denominations.														Totals	
		Presbyterian	Methodist	Anglican	Roman Catholic	Ruthenian Catholic	Greek Catholic	Greek Orthodox	Lutheran	Baptist	Congregational	Mormon	Moravian	Menonite	Salvation Army		(Others)
ELECTORAL DISTRICTS																	
Didsbury	M	9	6	3	6				6	4					4	2	
	F	11	6	3	3					3					4	4	
Edmonton South	M																
	F		1														
Edson	M	1	2	8	2				1							1	
	F		1	8	5											1	
Gleichen	M	9	1	7	3				2	1						2	
	F	8	3	5	3				4							2	
Grouard	M		1	4	13				1								
	F			3	15				1								
Hand Hills	M	16	22	7	4			1	8	5				1		8	1
	F	17	16	11	5			1	8	7	1			1		6	
High River	M	4	4	3	2									3		1	
	F	2	2	2	4				2			1		3		1	
Innisfail	M	8	4	6					5	1	1						
	F	8	8	3					4	2							
Lacombe	M	10	15	6	3				5	2	2					12	1
	F	15	16	9	5				3	2						6	
Lac Ste. Anne	M		5	3	5				2	1							
	F		3	2	8											1	
Leduc	M		6		16	2			6	9	8	2				1	
	F	2	7		17	2			6	9	5						2
Lethbridge District	M			1													
	F																
Little Bow	M	4	22	2	2				4	2	1					2	
	F	7	20	1	2				3	2	1					3	

[illegible]

MARRIAGES by Religious Denominations in Electoral Districts, 1917 (Continued).

ELECTORAL DISTRICTS		Religious Denominations														Totals			
		Sex		Presbyterian	Methodist	Anglican	Roman Catholic	Ruthenian Catholic	Greek Catholic	Greek Orthodox	Lutheran	Baptist	Congregational	Mormon	Moravian			Mennonite	Salvation Army
Talbot		M	16	10	1	1	1	1	1	1	6	1	2	20	1	1	1	1	1
		F	17	14	5	3	3	3	3	5	1	1	1	15	1	1	1	1	1
Vernonville		M	9	11	8	42	30	30	11	6	11	6	2	2	1	1	1	1	2
		F	11	13	4	42	30	30	11	5	4	2	2	1	1	1	1	1	1
Vermilion		M	12	12	1	4	32	4	1	4	4	3	1	1	1	1	1	1	1
		F	13	10	2	4	32	3	3	3	3	6	1	1	1	1	1	1	1
Victoria		M	6	9	5	4	8	3	3	21	2	2	1	1	1	1	1	4	1
		F	10	6	3	4	8	2	2	21	2	2	1	1	1	1	1	6	1
Wainwright		M	25	10	2	7	1	1	1	1	1	1	1	1	1	1	1	1	1
		F	24	9	1	7	1	1	1	1	1	1	1	1	1	1	1	1	1
Warner		M	1	3	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1
		F	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Wetaskiwin		M	13	5	6	1	1	1	1	26	2	1	3	1	1	1	1	1	1
		F	8	8	4	3	3	3	78	27	2	3	1	1	1	1	1	1	1
Whitford		M	1	1	1	11	5	10	10	1	1	1	1	1	1	1	1	1	1
		F	1	2	1	13	3	11	76	1	1	1	1	1	1	1	1	1	1
Lethbridge City		M	57	44	26	23	3	3	3	15	16	2	12	1	1	1	1	14	3
		F	52	38	37	26	2	2	2	14	11	1	13	1	1	1	1	19	3
Medicine Hat City		M	57	50	14	26	1	1	1	58	14	3	4	1	1	1	1	22	1
		F	48	41	29	31	1	1	1	44	20	5	4	1	1	1	1	25	1
Edmonton City		M	170	143	137	90	27	6	17	83	49	7	5	5	1	1	1	20	15
		F	169	130	146	99	27	3	16	88	48	8	2	2	1	1	1	22	8
Calgary City		M	268	218	158	77	1	1	1	63	57	10	1	1	1	1	1	56	8
		F	263	191	177	74	1	1	1	64	70	16	4	3	2	1	1	53	3
Totals			1773	1646	1097	1307	216	56	265	895	167	103	158	17	30	16	419	75	4270

## MARRIAGES by Ages in Electoral Districts, 1917.

ELECTORAL DISTRICTS	Sex	Ages										Total
		15 to 16	16 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 59	60 and over	
Acadia .....	M	..	..	8	27	11	8	3	2	2	2	63
	F	2	14	20	13	7	2	2	1	2	..	
Alexandra .....	M	..	..	6	15	6	6	..	..	..	..	33
	F	..	5	17	7	4	..	..	..	..	..	
Athabasca .....	M	..	2	11	9	4	5	1	..	2	..	34
	F	..	15	8	..	6	1	2	1	1	..	
Beaver River .....	M	..	..	7	19	2	1	..	2	1	..	32
	F	..	12	14	3	1	1	..	1	..	..	
Bow Valley .....	M	..	6	5	2	3	2	..	..	..	..	18
	F	..	2	8	2	2	3	1	..	..	..	
Calgary North .....	M	..	..	..	1	..	..	..	..	..	..	1
	F	..	..	..	1	..	..	..	..	..	..	
Calgary South .....	M	..	..	2	1	1	..	..	..	..	..	4
	F	..	1	2	1	..	..	..	..	..	..	
Camrose .....	M	..	..	33	44	19	7	2	..	..	..	105
	F	..	31	45	22	6	1	..	..	..	..	
Cardston .....	M	..	3	21	10	..	..	2	1	..	..	37
	F	1	17	14	5	..	..	..	..	..	..	
Claresholm .....	M	..	..	3	4	7	1	..	..	2	..	17
	F	..	2	8	3	2	..	..	2	..	..	
Clearwater .....	M	..	3	5	..	..	..	..	..	..	..	8
	F	2	3	3	..	..	..	..	..	..	..	
Cochrane .....	M	..	..	3	2	4	3	..	2	..	..	14
	F	..	2	7	1	3	1	..	..	..	..	
Coronation .....	M	..	2	8	34	6	3	1	..	3	..	57
	F	..	21	26	7	1	1	..	1	..	..	
Didsbury .....	M	..	1	9	17	8	3	..	2	..	..	40
	F	..	15	13	5	3	4	..	..	..	..	
Edmonton South ..	M	..	..	1	1	..	..	..	..	..	..	2
	F	..	1	1	..	..	..	..	..	..	..	
Edson .....	M	..	..	6	6	2	..	1	..	..	..	15
	F	..	9	1	2	2	1	..	..	..	..	
Gleichen .....	M	..	..	8	12	4	..	1	..	..	..	25
	F	..	6	13	5	1	..	..	..	..	..	
Grouard .....	M	..	2	8	4	2	1	1	..	..	1	19
	F	..	7	7	3	1	..	..	..	..	1	
Hand Hills .....	M	..	..	22	30	8	7	2	1	..	3	73
	F	1	29	24	10	1	5	1	..	1	1	
High River .....	M	..	..	9	2	2	2	..	..	2	..	17
	F	2	3	8	2	..	..	..	..	2	..	
Innisfail .....	M	..	..	5	6	9	3	1	..	1	..	25
	F	..	6	9	5	2	3	..	..	..	..	
Lacombe .....	M	..	..	16	25	11	1	..	1	..	2	56
	F	..	18	25	9	2	1	..	1	..	..	
Lac Ste. Anne ....	M	..	..	..	9	7	..	..	..	..	..	16
	F	..	6	8	1	..	1	..	..	..	..	
Leduc .....	M	..	..	20	15	5	5	..	3	2	..	50
	F	..	20	14	10	..	4	..	..	2	..	

## MARRIAGES by Ages in Electoral Districts, 1917.—(Continued).

ELECTORAL DISTRICTS	Sex	Ages										Total
		15 to 16	16 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 59	60 and over	
Lethbridge Dis. ....	M	..	..	..	..	..	..	..	1	..	..	1
	F	..	..	..	..	1	..	..	..	..	..	..
Little Bow .....	M	..	..	10	14	11	2	1	..	1	..	39
	F	..	11	14	6	6	..	2	..	..	..	..
Macleod .....	M	..	..	15	14	4	3	1	..	..	..	37
	F	..	14	11	7	1	3	1	..	..	..	..
Med. Hat District ..	M	..	..	25	16	6	3	3	3	1	3	60
	F	..	26	18	6	1	3	3	1	1	1	..
Nanton .....	M	..	..	6	4	3	1	..	..	..	..	14
	F	..	5	8	1	..	..	..	..	..	..	..
Okotoks .....	M	..	..	3	6	..	3	2	..	..	..	14
	F	..	2	5	1	1	1	4	..	..	..	..
Olds .....	M	..	..	23	9	6	1	..	..	1	..	40
	F	..	17	19	1	2	1	..	..	..	..	..
Peace River .....	M	..	..	18	20	11	5	2	..	..	1	57
	F	2	24	15	5	7	3	..	..	..	1	..
Pembina .....	M	..	..	5	5	5	..	1	2	..	..	18
	F	..	6	6	1	2	..	..	2	1	..	..
Pincher Creek ....	M	..	..	5	3	5	..	3	..	..	..	16
	F	..	..	12	2	1	1	..	..	..	..	..
Ponoka .....	M	..	2	10	7	5	1	..	1	..	..	26
	F	..	8	8	7	2	1	..	..	..	..	..
Redcliff .....	M	..	2	11	16	10	1	2	..	..	..	42
	F	..	7	11	20	4	..	..	..	..	..	..
Red Deer .....	M	..	..	15	26	10	4	1	2	2	1	61
	F	1	20	25	7	6	..	2	..	..	..	..
Ribstone .....	M	..	2	24	17	6	2	3	1	..	..	55
	F	..	24	18	3	4	4	..	2	..	..	..
Rocky Mountain ..	M	..	..	25	22	9	9	5	7	2	2	81
	F	..	19	33	8	6	4	6	3	2	..	..
St. Albert .....	M	..	5	11	18	6	4	2	1	3	..	50
	F	..	18	19	2	3	2	4	2	..	..	..
St. Paul .....	M	..	..	11	15	3	1	..	1	1	..	32
	F	..	18	7	4	2	..	..	1	..	..	..
Sedgewick .....	M	..	3	19	18	6	2	1	..	..	..	49
	F	..	20	21	5	2	1	..	..	..	..	..
Stettler .....	M	..	..	27	31	8	11	3	..	..	2	82
	F	..	27	34	9	6	2	2	..	..	2	..
Stony Plain .....	M	..	..	5	6	1	1	..	..	..	..	13
	F	..	4	6	3	..	..	..	..	..	..	..
Sturgeon .....	M	..	..	7	3	3	2	..	..	..	1	16
	F	..	7	5	3	..	..	..	..	1	..	..
Taber .....	M	..	1	22	17	8	8	1	1	2	..	60
	F	..	26	23	4	4	2	..	..	..	1	..
Vernon .....	M	..	1	71	29	7	2	5	4	4	1	124
	F	3	80	22	7	3	2	5	..	1	1	..
Vermilion .....	M	..	..	38	20	4	7	4	..	..	..	73
	F	3	39	14	9	2	4	2	..	..	..	..

## MARRIAGES by Ages in Electoral Districts, 1917.—(Continued).

ELECTORAL DISTRICTS	SEX	Ages										Total
		15 to 16	16 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 59	60 and over	
Victoria .....	M	..	2	25	22	3	5	3	3	1	..	64
	F	..	37	17	3	1	1	4	1	..	..	
Wainwright .....	M	..	2	21	17	6	6	..	..	..	..	52
	F	..	22	17	6	2	4	1	..	..	..	
Warner .....	M	..	..	3	..	3	..	1	1	..	..	8
	F	..	1	5	1	1	..	..	..	..	..	
Wetaskiwin .....	M	..	1	15	31	5	2	..	2	..	..	56
	F	..	23	22	7	3	..	1	..	..	..	
Whitford .....	M	..	4	55	30	10	4	2	..	..	1	106
	F	11	79	8	3	1	1	..	..	2	1	
Lethbridge .....	M	..	3	74	65	36	20	3	11	2	2	216
	F	3	54	81	32	23	3	3	5	2	..	
Med. Hat City ...	M	..	4	61	87	46	20	12	8	6	3	247
	F	2	61	97	40	21	11	6	5	4	..	
Edmonton City ...	M	..	4	186	264	157	78	33	23	23	6	774
	F	7	168	296	147	63	43	25	6	17	2	
Calgary City .....	M	..	7	227	300	186	104	49	28	19	6	926
	F	..	133	344	216	130	61	24	10	7	1	
Total .....		40	1317	2825	2140	1065	557	259	159	129	47	4270

REGISTRATIONS BY ELECTORAL DISTRICTS 1917, BY MONTHS.  
DEATHS.

Electoral Districts	Months												Total
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
Acadia	4	3	7	4	4	3	4	1	6	4	2	7	49
Alexandra	2	1	2	1	3	1	2	2	3	2	2	1	19
Athabasca	3	9	2	3	6	5	5	3	4	6	3	3	56
Beaver River	9	2	10	6	4	3	5	2	4	4	8	3	60
Bow Valley	2	1	6	2	4	2	1	1	1	2	3	23	
Calgary N. (exclusive of city)	1	1	1	1	1	1	1	1	1	1	1	1	2
Calgary S. (exclusive of city)	1	1	1	1	1	1	1	1	1	1	1	1	2
Camrose	15	7	16	9	8	6	5	3	9	7	4	6	95
Cardston	6	3	7	5	1	3	1	1	5	2	4	3	41
Clareholm	1	2	4	3	1	1	1	1	1	3	1	2	22
Clearwater	1	2	1	2	4	2	1	2	4	1	1	3	21
Cochrane	5	2	3	2	2	3	1	1	2	1	1	1	23
Coronation	4	7	7	5	5	2	4	4	3	8	1	5	55
Didsbury	5	7	5	6	3	3	4	1	4	2	2	6	47
Edmonton South	1	1	3	1	1	1	1	1	1	1	1	1	15
Edson	7	2	5	4	3	1	4	1	3	2	5	2	39
Gleichen	5	4	5	5	4	1	5	6	2	2	3	3	45
Grouard	1	4	5	2	4	3	2	4	2	4	3	7	41
Hand Hills	7	3	9	6	9	5	3	7	4	9	10	3	75
High River	1	2	3	2	1	1	1	2	1	2	1	1	16
Innisfail	1	2	3	2	6	5	3	5	3	3	9	1	43
Lacombe	8	7	1	4	4	2	5	1	4	2	1	7	46
Lac Ste. Anne	8	5	3	6	3	2	3	1	3	1	3	1	38
Leduc	4	5	7	3	6	3	7	8	3	8	6	6	66
Lethbridge District	3	3	2	2	3	3	2	3	2	1	3	27	
Little Bow	2	2	5	5	4	1	5	4	1	4	1	1	33
Macleod	1	5	3	2	6	3	1	1	2	3	3	2	31
Medicine Hat District	8	7	4	8	4	6	8	6	3	3	1	7	65
Nanton	1	2	2	1	3	1	1	2	1	2	1	2	15
Okotoks	2	1	2	1	3	1	1	1	2	1	1	3	17
Olds	2	2	5	2	1	6	4	2	1	3	4	5	37
Peace River	6	2	3	10	9	7	5	5	4	10	3	8	72
Pembina	7	3	4	3	5	4	1	1	1	1	3	3	35
Pincher Creek	1	5	6	4	5	1	2	2	2	2	2	2	33
Ponoka	13	11	9	14	14	12	3	6	7	2	8	99	
Redcliff	6	4	4	11	5	6	5	5	4	3	4	4	61
Red Deer	8	2	6	6	5	5	2	8	4	3	6	5	60
Ribstone	5	1	1	6	3	3	3	5	1	4	2	3	39
Rocky Mountain	13	9	8	12	6	4	6	7	9	11	8	7	100
St. Albert	7	6	4	2	5	2	1	5	10	2	4	48	
St. Paul	8	6	7	9	10	10	5	10	7	6	6	7	91
Sedgewick	3	6	4	11	4	4	5	5	2	7	1	2	54
Stettler	9	9	7	8	7	7	9	5	11	7	1	5	85
Stony Plain	5	4	2	5	5	3	4	2	2	1	2	4	39
Sturgeon	8	2	4	5	4	4	5	8	7	3	4	4	58
Taber	7	14	6	9	10	5	4	3	6	7	9	6	86
Vegreville	12	9	7	17	16	16	8	13	7	12	5	8	130
Vermilion	12	1	3	6	7	5	7	10	13	7	4	5	80
Victoria	5	3	6	3	7	3	4	8	3	11	4	7	64
Wainwright	4	3	6	6	1	3	1	3	5	1	6	4	43
Warner	2	1	4	2	2	1	2	2	3	2	0	21	
Wetaskiwin	3	4	2	2	3	5	2	2	3	5	7	8	46
Whitford	13	9	13	6	6	4	12	16	8	6	9	10	112
Lethbridge City	12	11	9	10	19	16	12	14	10	15	7	13	148
Medicine Hat City	14	9	9	16	6	11	11	14	11	10	16	11	138
Edmonton City	52	43	60	52	44	35	40	53	37	39	39	47	541
Calgary City	60	45	45	56	67	53	51	38	59	37	40	51	602
Totals	415	312	369	400	374	313	305	304	316	320	279	310	4047



## REGISTRATIONS BY ELECTORAL DISTRICTS FOR THE YEAR 1917.

## DEATHS.

Electoral Districts	Sex			Under One Year	
	Male	Female	Total	Male	Female
Acadia .....	28	21	49	12	8
Alexandra .....	11	8	19	5	1
Athabasca .....	36	20	56	10	6
Beaver River .....	33	27	60	14	10
Bow Valley .....	15	8	23	4	2
Calgary North (exclusive of city) ..	..	..	..	..	..
Calgary South (exclusive of city) ..	1	1	2	..	..
Camrose .....	53	42	95	17	13
Cardston .....	27	14	41	5	3
Claresholm .....	7	15	22	4	6
Clearwater .....	11	10	21	1	3
Cochrane .....	9	14	23	3	2
Coronation .....	29	26	55	11	10
Didsbury .....	26	21	47	10	6
Edmonton South .....	9	6	15	2	3
Edson .....	28	11	39	4	1
Gleichen .....	30	15	45	11	6
Grouard .....	22	19	41	7	7
Hand Hills .....	47	28	75	16	13
High River .....	10	6	16	3	2
Innisfail .....	18	25	43	6	4
Lacombe .....	26	20	46	6	8
Lac Ste. Anne .....	20	18	38	9	6
Leduc .....	36	30	66	15	13
Lethbridge District .....	19	8	27	11	5
Little Bow .....	18	15	33	4	6
Macleod .....	18	13	31	2	5
Medicine Hat District .....	41	24	65	16	10
Nanton .....	5	10	15	1	1
Okotoks .....	7	10	17	2	1
Olds .....	22	15	37	5	5
Peace River .....	42	30	72	15	8
Pembina .....	18	17	35	4	3
Pincher Creek .....	23	10	33	4	1
Ponoka .....	65	34	99	4	7
Redcliff .....	25	36	61	9	8
Red Deer .....	36	24	60	8	5
Ribstone .....	19	20	39	7	4
Rocky Mountain .....	60	40	100	15	21
St. Albert .....	27	21	48	5	9
St. Paul .....	54	37	91	18	12
Sedgewick .....	30	24	54	9	10
Stettler .....	42	43	85	10	13
Stony Plain .....	20	19	39	6	3
Sturgeon .....	27	31	58	9	16
Taber .....	47	39	86	19	13
Vegreville .....	69	61	130	22	22
Vermilion .....	44	36	80	19	13
Victoria .....	36	28	64	10	6
Wainwright .....	23	20	43	9	5
Warner .....	14	7	21	2	1
Wetaskiwin .....	26	20	46	7	4
Whitford .....	66	46	112	30	24
Lethbridge City .....	82	66	148	15	18
Medicine Hat City .....	79	59	138	21	15
Edmonton City .....	294	247	541	73	63
Calgary City .....	343	259	602	82	68
Totals .....	4047	2273	1774	648	538

## DEATHS DURING THE YEAR 1917, BY AGES AND SEXES.

DISEASES.	AGE.							SEX.	
	AGE.							Male	Female
	Under 1	1-4	5-14	15-24	25-44	45-59	60-69	70 and over	Total
I.—GENERAL DISEASES.									
1. Typhoid Fever .....	2	2	7	12	15	1	1	22	20
5. Smallpox .....	..	..	1	..	..	..	..	1	1
6. Measles .....	9	14	3	3	1	..	..	14	16
7. Scarlet Fever .....	1	2	2	..	1	..	..	5	1
8. Whooping Cough .....	..	..	..	..	..	..	..	..	..
9. Diphtheria .....	55	26	1	..	..	..	..	39	43
10. Influenza .....	5	21	24	4	2	..	..	35	31
11. Dysentery .....	43	7	4	2	3	4	6	37	38
14. Erysipelas .....	6	9	..	..	..	..	1	10	7
18. Other Epidemic Diseases .....	8	..	1	1	2	3	..	7	8
19. Purulent Infection and Septicemia .....	1	..	..	..	..	..	..	..	..
20. Tetanus .....	3	1	5	3	8	2	..	13	13
24. Tuberculosis of the Lungs .....	..	1	1	..	..	..	..	1	1
28. Acute Miliary Tuberculosis .....	12	14	32	64	116	31	7	154	129
29. Tuberculosis Meningitis .....	..	1	1	..	..	..	..	2	2
30. Abdominal Tuberculosis .....	4	6	5	1	1	1	..	8	11
31. Pott's Disease .....	..	2	1	2	5	4	..	5	8
32. Tuberculosis of Other Organs .....	..	..	..	..	2	..	..	2	1
34. Rickets .....	..	..	2	2	4	1	1	8	3
36. Syphilis .....	1	2	..	..	..	..	..	3	11
37. Cancer and Other Malignant Tumors of the Buccal Cavity .....	..	..	..	..	..	..	..	1	2
39. Cancer and Other Malignant Tumors of the Stomach, Liver .....	..	..	..	..	..	..	..	5	1
40. Cancer and Other Malignant Tumors of the Peritoneum, Intestines, .....	..	..	..	..	15	28	25	3	3
41. Rectum .....	..	..	..	..	..	..	..	54	29
42. Cancer and Other Malignant Tumors of the Female Genital Organs .....	..	..	..	..	4	14	13	16	24
43. Cancer and Other Malignant Tumors of the Breast .....	..	..	..	1	9	7	2	..	21
	..	..	..	..	3	7	2	..	14

44. Cancer of the Skin .....	1	..	..	..	1	3	1	4	2	6
45. Cancer and Other Malignant Tumors of Organs and Organs not Specified .....	2	1	2	8	19	4	5	25	16	41
46. Other Tumors (Tumors of the Female Genital Organs excepted) ..	..	..	..	..	..	..	..	1	1	2
47. Acute Articular Rheumatism .....	..	..	..	..	..	..	..	11	14	25
48. Chronic Rheumatism and Gout .....	1	..	..	..	..	..	..	..	..	..
49. Scurvy .....	..	..	..	..	..	..	..	..	..	..
50. Diabetes .....	..	..	..	..	..	..	..	..	..	..
51. Exophthalmic Goitre .....	1	..	..	..	..	..	..	14	14	28
52. Addison's Disease .....	..	..	..	..	..	..	..	..	..	..
53. Leucæmia .....	..	..	..	..	..	..	..	..	..	..
54. Anaemia, Chlorosis .....	..	..	..	..	..	..	..	10	1	11
55. Other General Diseases .....	..	..	..	..	..	..	..	14	12	26
56. Alcoholism (Acute or Chronic) .....	..	..	..	..	..	..	..	1	2	3
57. Chronic Lead Poisoning .....	..	..	..	..	..	..	..	..	..	..

## II.—DISEASES OF THE NERVOUS SYSTEM AND OF THE ORGANS OF SPECIAL SENSE.

60. Encephalitis .....	1	..	..	..	..	..	..	..	..	..
61. Simple Meningitis .....	15	16	9	6	6	..	..	37	18	55
62. Locomotor Ataxia .....	..	..	..	..	..	..	..	1	1	2
63. Other Diseases of the Spinal Cord .....	..	..	..	..	..	..	..	1	8	9
64. Cerebral Hemorrhage .....	1	1	1	..	..	..	..	55	44	99
65. Softening of the Brain .....	..	..	..	..	..	..	..	..	..	..
66. Paralysis, without Specified Causes .....	..	..	..	..	..	..	..	13	19	32
67. General Paralysis of the Insane .....	..	..	..	..	..	..	..	22	2	24
68. Other Forms of Mental Alienation .....	..	..	..	..	..	..	..	6	3	9
69. Epilepsy .....	..	..	..	..	..	..	..	7	2	9
70. Convulsions (Non-Puerperal) .....	..	..	..	..	..	..	..	1	..	1
71. Convulsions of Infants .....	65	9	1	..	..	..	..	15	30	75
73. Neuralgia and Neuritis .....	..	..	..	..	..	..	..	1	4	5
74. Other Diseases of the Nervous System .....	..	..	..	..	..	..	..	4	3	7
75. Diseases of the Eye and its Annexa .....	..	..	..	..	..	..	..	..	..	..
76. Diseases of the Ears .....	1	..	..	..	..	..	..	5	3	8

## III.—DISEASES OF THE CIRCULATORY SYSTEM.

77. Pericarditis .....	..	..	..	..	..	..	..	..	..	..
78. Acute Endocarditis .....	3	2	6	4	18	18	14	36	32	68
79. Other Diseases of the Heart .....	12	1	2	5	27	32	44	98	74	172



104.	Diarrhoea and Enteritis	84	61	1	..	7	1	2	..	97	59	156
108.	Appendicitis and Typhilitis	..	5	21	12	21	16	3	1	47	41	88
109.	Hernia, Intestinal Obstruction	10	7	1	..	5	9	4	1	24	13	37
110.	Other Diseases of the Intestines	2	1	..	1	..	3	1	..	6	2	8
111.	Acute Yellow Atrophy of the Liver	..	..	..	..	..	..	..	..	..	..	..
113.	Cirrhosis of the Liver	..	..	..	..	1	6	3	2	8	4	12
114.	Biliary Calculi	..	..	..	..	3	4	..	..	1	8	9
115.	Other Diseases of the Liver	..	..	..	2	5	3	6	..	8	8	16
116.	Diseases of the Spleen	..	..	..	..	..	..	..	..	..	..	..
117.	Simple Peritonitis (Non Puerperal)	6	2	8	4	11	2	2	1	18	18	36
118.	Other Diseases of the Digestive System (Cancer and Tuberculosis excepted)	..	..	..	..	1	..	..	..	1	..	1

VI.—NON-VENEREAL DISEASES OF THE GENITO-URINARY SYSTEM  
AND ANNEXA.[illegible]

## VII. THE PERIPHERAL STATE.

134. Accidents of Pregnancy .....	1	180	3	21
135. Puerperal Hemorrhage .....	1	4	..	5
136. Other Accidents of Labor .....	8	11	1	20
137. Puerperal Septicemia .....	9	12	..	21
138. Puerperal Albuminuria and Convulsions .....	..	15	..	15
139. Puerperal Phlegmasia, Alba Dolens, Embolus .....	..	..	..	6
140. Following Child Birth (Not Otherwise Defined) .....	..	..	..	..
141. Puerperal Disease of the Breast .....	..	..	..	..



160. Suicide by Cutting and Piercing Instruments .....	..	..	..	4	..	1	..	5	..	3
161. Suicide by Jumping from High Places .....	..	..	..	..	..	..	..	..	..	..
162. Suicide by Crushing .....	..	..	..	..	..	..	..	..	..	..
163. Other Suicides .....	..	..	..	..	2	..	..	2	..	2
164. Poisoning by Food .....	..	1	1	..	..	..	..	1	1	2
165. Other Acute Poisonings .....	1	4	..	..	1	..	..	3	3	6
166. Conflagration .....	..	2	..	..	..	..	..	2	1	3
167. Burns .....	6	22	8	3	8	1	1	22	28	59
168. Absorption of Deleterious Gases .....	7	2	4	2	6	1	..	15	7	22
169. Accidental Drowning .....	1	11	14	12	14	2	1	48	7	55
170. Traumatism by Firearms .....	..	..	2	1	1	..	1	5	..	5
171. Traumatism by Cuttings and Piercing Instruments .....	..	..	..	..	..	..	..	..	..	..
172. Traumatism by Fall .....	1	1	1	..	4	3	1	10	1	11
173. Traumatism in Mines and Quarries .....	..	..	..	..	1	11	3	15	..	15
174. Traumatism by Machines .....	..	..	..	..	2	..	..	2	..	2
175. Traumatism by Other Crushing (Vehicles, Railroads, Landslides) ..	1	3	10	16	22	5	3	53	9	62
176. Injuries by Animals .....	1	1	5	..	4	1	3	14	2	16
177. Starvation .....	..	1	..	..	..	1	..	1	1	2
178. Excessive Cold .....	..	..	..	1	4	..	1	7	1	8
179. Effects of Heat .....	..	..	..	..	..	..	..	1	..	1
180. Lightning .....	..	..	1	..	..	..	..	2	..	2
184. Homicide .....	..	..	..	1	4	2	..	4	3	7
185. Fractures (Causes Not Specified) .....	..	1	2	1	4	1	2	12	3	15
186. Other External Causes, Legal Hanging .....	2	3	2	1	3	3	2	14	2	16
<b>XIV.—ILL-DEFINED DISEASES.</b>										
187. Ill-defined Organic Diseases .....	..	..	..	..	1	2	..	2	3	5
188. Sudden Death .....	2	..	..	1	1	1	2	5	3	8
189. Cause of Death Not Specified or Ill-defined .....	11	5	2	7	7	13	13	35	25	60
<b>Totals .....</b>	<b>1186</b>	<b>415</b>	<b>263</b>	<b>255</b>	<b>693</b>	<b>469</b>	<b>347</b>	<b>419</b>	<b>2273</b>	<b>1774</b>





44. Cancer of the Skin .....	1	..	1	..	1	..	..	..	..	6
45. Cancer and Other Malignant Tumors of Organs and Organs not Specified .....	13	13	8	..	2	..	..	..	..	41
46. Other Tumors (Tumors of the Female Genital Organs excepted) ..	..	..	1	..	..	1	..	..	..	2
47. Acute Articular Rheumatism .....	9	11	3	..	1	..	..	..	..	25
48. Chronic Rheumatism and Gout .....	1	..	1	..	..	1	..	..	..	6
49. Scurvy .....	..	..	..	..	..	..	..	..	..	..
50. Diabetes .....	13	8	4	..	1	2	..	..	..	28
51. Exophthalmic Goitre .....	1	2	2	..	..	..	..	..	..	3
52. Addison's Disease .....	1	..	1	..	..	..	..	..	..	2
53. Leuchaemia .....	7	3	1	..	..	..	..	..	..	11
54. Anaemia, Chlorosis .....	9	3	6	..	4	..	1	1	..	26
55. Other General Diseases .....	2	1	..	..	..	..	..	..	..	3
56. Alcoholism (Acute or Chronic) .....	..	4	..	1	..	..	1	..	1	8
57. Chronic Lead Poisoning .....	..	..	..	..	..	..	..	..	..	..

## II. DISEASES OF THE NERVOUS SYSTEM AND OF THE ORGANS OF SPECIAL SENSE.

60. Encephalitis .....	3	..	..	..	..	..	..	..	..	4
61. Simple Meningitis .....	43	5	3	..	..	1	..	..	..	55
62. Locomotor Ataxia .....	1	..	..	..	..	1	..	..	..	2
63. Other Diseases of the Spinal Cord .....	4	1	3	..	..	..	1	..	..	9
64. Cerebral Hemorrhage .....	36	31	15	2	2	4	2	..	3	99
65. Softening of the Brain .....	..	7	11	..	..	..	..	..	..	..
66. Paralysis, without Specified Causes .....	11	7	11	..	1	..	1	..	1	32
67. General Paralysis of the Insane .....	6	3	7	..	1	..	..	..	..	24
68. Other Forms of Mental Alienation .....	4	2	1	..	..	..	2	..	1	9
69. Epilepsy .....	3	1	3	..	..	..	1	1	..	9
70. Convulsions (Non-Puerperal) .....	..	..	..	..	..	..	..	1	1	1
71. Convulsions of Infants .....	75	..	..	..	..	..	..	..	..	75
73. Neuralgia and Neuritis .....	..	..	3	..	..	..	..	..	..	5
74. Other Diseases of the Nervous System .....	3	1	1	..	..	..	..	..	..	7
75. Diseases of the Eye and its Annexa .....	..	..	2	..	..	..	..	..	..	..
76. Diseases of the Ears .....	4	2	2	..	..	..	..	..	..	8

## III.—DISEASES OF THE CIRCULATORY SYSTEM.

77. Pericarditis .....	1	..	12	..	1	2	4	..	..	1
78. Acute Endocarditis .....	24	14	12	..	1	2	4	5	2	68
79. Other Diseases of the Heart .....	68	34	20	..	2	6	10	13	7	172

## DEATHS DURING THE YEAR 1917, BY NATIONALITIES.—(Continued).

DISEASES.	NATIONALITY.											
	Canada	Great Britain	United States	Italy	France	Russia	Scandinavia	Austria	Germany	Others	Unknown	Total
80. Angina Pectoris .....	6	2	1	1	..	..	..	..	..	..	..	10
81. Diseases of the Arteries, Atheroma, Aneurism, etc. ....	24	21	6	..	1	3	2	2	3	3	..	65
82. Embolism and Thrombosis .....	3	1	1	..	..	1	1	1	..	..	..	7
83. Diseases of the Veins (Varicose, Hemorrhoids, Phlebitis, etc.) ..	3	..	..	..	..	..	1	..	..	..	..	6
84. Diseases of the Lymphatic System .....	2	..	..	..	..	..	..	..	..	..	..	2
85. Hemorrhage, other Diseases of the Circulatory System .....	3	1	..	..	..	..	..	..	..	..	..	4
DISEASES OF THE RESPIRATORY SYSTEM.												
86. Diseases of the Nasal Fossae .....	..	..	..	..	..	..	..	..	..	..	..	..
87. Diseases of the Larynx .....	2	..	..	..	..	..	..	..	..	..	..	2
88. Diseases of the Thyroid Body .....	1	2	..	..	..	..	..	..	..	..	..	3
89. Acute Bronchitis .....	36	4	1	..	..	1	..	..	1	..	..	43
90. Chronic Bronchitis .....	4	5	1	1	..	1	1	2	..	..	..	14
91. Bronchopneumonia .....	60	2	2	..	..	5	11	16	1	1	..	97
92. Pneumonia .....	176	31	24	2	..	5	11	16	3	3	2	273
93. Pleurisy .....	13	3	4	1	..	..	2	3	1	..	..	27
94. Pulmonary Congestion, Pulmonary Apoplexy .....	5	1	1	..	..	..	..	..	..	..	..	7
95. Gangrene of the Lung .....	..	..	..	..	..	..	..	..	..	..	..	..
96. Asthma .....	6	4	..	..	..	2	..	1	..	..	1	14
98. Other Diseases of the Respiratory System (Tuberculosis excepted) ..	5	1	3	..	..	2	2	1	..	..	..	12
DISEASES OF THE DIGESTIVE SYSTEM.												
99. Diseases of the Mouth and Annexa .....	3	..	..	..	..	..	..	..	..	..	..	3
100. Diseases of the Pharynx .....	13	2	..	..	..	..	..	..	..	..	..	15
101. Diseases of the Esophagus .....	..	1	..	..	..	..	..	1	..	..	..	2
102. Ulcer of the Stomach .....	6	6	..	..	..	..	..	1	..	..	..	13
103. Other Diseases of the Stomach (Cancer excepted) .....	119	6	7	..	..	..	1	3	..	1	1	133





[illegible]

## XIV.—ILL-DEFINED DISEASES.

187.	Ill-defined Organic Diseases	.....	5	1	1	1	1	5
188.	Sudden Death	.....	5	1	1	1	1	9
189.	Cause of Death Not Specified or Ill defined	.....	1	1	1	1	1	6

Totals	2517	525	449	12	15	94	117	180	49	33	56	404
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## DEATHS DURING THE YEAR 1917, BY MONTHS.

## DISEASES.

## I.—GENERAL DISEASES.

	January	February	March	April	May	June	July	August	September	October	November	December	Total
1. Typhoid Fever .....	1	4	5	1	2	4	4	4	4	5	3	1	42
5. Smallpox .....	1	6	5	6	9	2	2	1	1	1	1	1	30
6. Measles .....	1	1	1	1	1	1	1	1	1	1	1	1	12
7. Scarlet Fever .....	12	5	10	3	12	6	9	10	7	1	1	1	82
8. Whooping Cough .....	3	3	3	10	3	7	1	4	7	4	3	3	56
9. Diphtheria .....	22	6	15	10	2	3	4	2	3	2	3	3	75
10. Influenza .....	1	1	1	1	1	1	1	1	1	1	1	1	12
14. Dysentery .....	2	1	1	1	1	1	1	1	1	1	1	1	12
18. Erysipelas .....	1	1	1	1	1	1	1	1	1	1	1	1	12
19. Other Epidemic Diseases .....	1	1	1	1	1	1	1	1	1	1	1	1	12
20. Purulent Infection and Septicæmia .....	1	1	1	1	1	1	1	1	1	1	1	1	12
24. Tetanus .....	1	1	1	1	1	1	1	1	1	1	1	1	12
28. Tuberculosis of the Lungs .....	28	24	24	29	25	27	21	18	23	16	13	33	283
29. Acute Miliary Tuberculosis .....	1	1	1	1	1	1	1	1	1	1	1	1	12
30. Tuberculosis Meningitis .....	1	1	1	1	1	1	1	1	1	1	1	1	12
31. Abdominal Tuberculosis .....	1	1	1	1	1	1	1	1	1	1	1	1	12
32. Pott's Disease .....	1	1	1	1	1	1	1	1	1	1	1	1	12
34. Tuberculosis of Other Organs .....	1	1	1	1	1	1	1	1	1	1	1	1	12
36. Rickets .....	1	1	1	1	1	1	1	1	1	1	1	1	12
37. Syphilis .....	1	1	1	1	1	1	1	1	1	1	1	1	12
39. Cancer and Other Malignant Tumors of the Buccal Cavity .....	9	4	10	10	9	7	8	3	5	9	1	9	83
40. Cancer and Other Malignant Tumors of the Stomach, Liver .....	5	1	3	3	5	3	1	4	5	1	6	3	40
41. Cancer and Other Malignant Tumors of the Peritoneum, Intestines, Rectum .....	1	1	1	2	3	4	4	1	2	1	2	2	21
42. Cancer and Other Malignant Tumors of the Female Genital Organs .....	1	1	1	2	3	4	2	1	1	1	1	1	14
43. Cancer of the Skin .....	1	1	1	1	1	1	1	1	1	1	1	1	12
44. Cancer and Other Malignant Tumors of Organs not Specified .....	6	4	2	6	2	4	2	2	3	4	3	3	41

[illegible]

## II. DISEASES OF THE NERVOUS SYSTEM AND OF THE ORGANS OF SPECIAL SENSE.

[illegible]

### III.—DISEASES OF THE CIRCULATORY SYSTEM.

[illegible]





1114.	Biliary Calculi	1	1	3	1	2	1	0
1115.	Other Diseases of the Liver	4	2	1	3	1	1	16
1116.	Diseases of the Spleen							
1117.	Simple Peritonitis (Non-Puerperal)	3	3	5	2	1	3	36
1118.	Other Diseases of the Digestive System (Cancer and Tuberculosis excepted)							1

## VI.—NON-VENEREAL DISEASES OF THE GENITO-URINARY SYSTEM AND ANNEXA.

[illegible]

## VII.—THE PUERPERAL STATE.

[illegible]

## VIII.—DISEASES OF THE SKIN AND OF THE CELLULAR TISSUE.

142.	Gangrene	1	1
143.	Acute Abscess	1	1
144.	Other Diseases of the Skin and Annexa	1	1
145.		1	1





## VITAL STATISTICS, 1905 TO 1917, INCLUSIVE.

Year	Births	Marriages	Deaths	Totals
1905 .....	421	187	114	722
1906 .....	3,033	927	1,091	5,051
1907 .....	4,732	1,907	1,578	8,217
1908 .....	5,973	2,032	2,188	10,193
1909 .....	6,897	2,384	2,662	11,943
1910 .....	8,231	3,086	3,526	14,843
1911 .....	8,813	3,630	3,618	16,061
1912 .....	10,284	4,429	4,232	18,945
1913 .....	11,871	5,053	4,432	21,356
1914 .....	13,685	4,623	4,147	22,455
1915 .....	13,452	4,202	3,588	21,242
1916 .....	13,331	4,230	4,058	21,619
1917 .....	13,576	4,270	4,047	21,893

## POPULATION AND BIRTH AND DEATH RATE.

Population (Estimated 1917) .....	500,000
Birth Rate, per 1,000 .....	27.91
Death Rate, per 1,000 .....	8.09

## RATIO OF MALE TO FEMALE BIRTHS AND OF BIRTHS TO DEATHS.

Year	Births of Males to 1,000 Births of Females	Ratio of Births to Deaths	Year	Births of Males to 1,000 Births of Females	Ratio of Births to Deaths
1901	1,081	3.55	1910	1,065	2.69
1902	1,010	2.59	1911	1,103	2.43
1903	1,056	2.95	1912	1,084	2.43
1904	1,118	3.04	1913	1,053	2.67
1905	1,059	3.11	1914	1,081	3.30
1906	1,094	2.07	1915	1,100	3.47
1907	1,075	2.96	1916	1,063	3.29
1908	1,077	2.73	1917	1,061	3.25
1909	1,086	2.59			

## DEATHS OF INFANTS UNDER ONE YEAR, DURING 1917.

To 1,000 Births .....	87.3
To 1,000 Deaths from all causes .....	293.05
Stillbirths .....	325

Respectfully submitted,

T. J. NORMAN, M.D.,

*Deputy Registrar General.*

## ALBERTA NATURAL HISTORY SOCIETY

REPORT OF THE NATURAL HISTORY SOCIETY, NOVEMBER, 1917.

SIR,—I beg to submit herewith report of the Alberta Natural History Society for the year 1917:

In spite of many calls upon the leisure time of our members, for patriotic or charitable work arising out of the war, the aims of our Society, we are pleased to state, have not been neglected during the past year. We can, in fact, review the endeavors of our members individually, and our Society as a whole, with a considerable degree of satisfaction.

At the suggestion of members devoting their attention to botany an Herbarium was purchased out of funds of the Society early in the year, and installed in the Public Library room in the City Hall. The case was made to order, and the adjustable shelving makes practicable the correct arrangement of specimens within the least possible space. It is hoped in due course, by means of donations by our members, and also specimens specially gathered and preserved for the purpose, to build up a representative properly named collection of flora of the Red Deer District, available for reference or study.

In response to the representations made by Mrs. G. F. Root at the last Annual Meeting, that suitable material for study and instruction was much needed for circulation among the country schools, the President, Mr. Whitehouse, undertook to prepare a case each of butterflies and dragonflies. These were duly forwarded to Mrs. Root in the spring, with a paper accompanying each, giving the names of the specimens enclosed, and such additional information as was deemed desirable. Mrs. Root prepared an itinerary whereby the cases should pass from school to school at regular intervals; and since no special knowledge is required by the teachers in order to convey to the pupils the natural history instruction contained in the papers, the scheme certainly suggests great educational possibilities.

A noticeable increase of interest in natural history study on the part of the boys and girls of Red Deer has come about during the past year. Unquestionably this has largely been due to the praiseworthy encouragement of two local teachers—Miss Cole and Miss Goudie. Other members of our Society have ably seconded the good work by example and instruction, in which connection Mrs. W. A. Cassels' lecture on "Bird Life" to the High School pupils should have honorable mention.

In view of the increase in interest this Summer as above referred to, our Society will again next year consider a suitable prize list to be given for collections and papers exhibited at the local Fair, by school boys and girls of the district.

At the request of Mr. M. O. Nelson, Inspector of Schools for the Wetaskiwin District, our Society donated \$10 toward the prize list of the School Fair held in Wetaskiwin. The funds were used in providing prizes for the following classes: Collection of insects; collection of weed seeds; collection of weeds. It is gratifying to learn that "the exhibits were well selected, tastefully arranged, and showed careful work on the part of both teachers and pupils."

The City Librarian reports that on library nights the two fine cases of butterflies and moths, the property of our Society installed in the City Hall, continue to interest the Public, particularly of course, the young people. By means of these cases, virtually all local butterflies, and many of the commoner moths, can be identified.

To stimulate the interest of the farming community in economic botany and entomology is one of the avowed objects of our Society. Along these lines various articles have been published by members in the public press, and in the Summer the President gave a paper, by invitation, before the Edwell Union of the United Farmers of Alberta, entitled "Insect Pests affecting Grain Crops, Gardens and Trees."

Since a full list of the natural history papers, read at the monthly meetings of our Society, is given in the Secretary's Report, it is unnecessary to detail them here. It might be mentioned, however, that Alberta butterflies

and moths, dragonflies, flowers, birds and fishes have all been dealt with, while the four-footed animals have not been neglected in the general discussions.

The activities of our Edmonton members, Messrs. F. S. Carr, K. Bowman and D. Mackie, continue unabated. While all specialize in entomology, the former studies the order Coleoptera (beetles) particularly, and the latter two the order Lepidoptera (butterflies and moths).

Insects of extraordinary interest, on account of their being new records for the Province or of extreme rarity, collected by our members, are, from year to year, advised to Mr. Arthur Gibson, Assistant Dominion Entomologist, and are duly recorded by him in the "Entomological Record" in the Annual Report of the Entomological Society of Ontario.

In the "Canadian Entomologist" of March last, there appeared a paper by Mr. Whitehouse on "The Odonata (Dragonflies) of the Red Deer district." A supplementary list of dragonflies, taken by him this year, will appear in the same magazine shortly; also an account of his camping-collecting trip at Nordegg last July with Mr. Bowman, written in popular style.

During the past few months Mr. K. Bowman, one of the enthusiastic Edmonton members of our Society already mentioned, has been compiling the draft of a check-list of the Alberta butterflies and moths. His list will include all known provincial records right up to date, and will give the localities in which the various insects have been taken. The names will be in accordance with the recent revision of the order, by the noted authorities, Messrs. Barnes and McDunnough of Decatur, Ill. The publication of Mr. Bowman's provincial list would provide most useful information, not only to Alberta students, but to collectors and systematists in other parts of Canada and the United States. The practicability of putting the list into print will come under consideration by our Society in the near future.

Our Society again records its appreciation of the sympathetic assistance received from the Provincial Government, which is fully alive to the importance of keeping abreast with the sister provinces in the encouragement of nature study, and its various economic phases. The establishment of a Provincial Collection of insects, it is understood, is in contemplation. This would command the individual support and assistance of every naturalist in Alberta, and the very strong commendation of our Society.

#### ENTOMOLOGICAL REPORT. 1917.

By F. C. Whitehouse.

For the fourth year I beg to submit an entomological report for the period since the last Annual Meeting.

#### INSECT PESTS.

The Forest Tent Caterpillar (*Malacosoma disstria*).—This pest has again been troublesome in the Red Deer district. Upon the north side of Sylvan Lake, where last year the white poplars, balsam and birch were completely denuded of leaves, considerably less damage was done. Back from the lake front, however, the leaves on the smaller growth of trees were badly eaten off. Due to my representations concerning the outbreak to the Dominion Entomologist, a member of his staff, Mr. J. D. Tothill, temporarily located in British Columbia, made three trips to Red Deer and Sylvan Lake. It is possible that an attempt will be made to introduce into this district certain insects, parasitic upon Tent caterpillars in the hopes of checking the outbreak. The most important natural control in this district at present is frost, which when it occurs in the very early days in the lives of the caterpillars, will kill them off.

The Colorado potato beetle (*Leptinotarsa decemlineata*), a pest commonly known as the "Potato Bug," has been known to occur for some years in the southern portion of the Province. This year it caused some consternation by appearing in Calgary, and I regret to state there have been two instances this year of it being found at Red Deer. One of these was on a farm east, and one inside the City. Where the Potato bug occurs in abundance the spraying of the plants with Paris green is an absolute necessity in order to ensure a crop. As a matter of fact the far-reaching benefits of economic entomology as they exist today are largely the outcome of the fight forced upon mankind by the advent of the Potato bug. Whether climatic conditions in central

and northern Alberta will permit this serious pest to establish itself the future alone will show. The beetle hibernates in the adult stage and, snug in the soil beneath a good covering of snow, can defy any temperature. Insufficiently protected by snow, however, it cannot winter; and possibly our early spring weather when severe frosts occur, after a welcome chinook has cleared the ground of snow, may prove its destruction.

The cabbage maggot and cutworm pests caused some damage and annoyance throughout the district as is their wont. So far as I have been able to discover, however, they were rather less to the fore than usually is the case.

Throughout the Red Deer district no instances have come to my attention of insect pests causing damage to cereal crops. This has not been altogether the case in other parts of the Province, and knowing this, it occurred to me about a month ago to obtain reliable information covering insect-pest outbreaks for the whole Province, and thus broaden the nature of my report as of former years, and I hope greatly enhance its value.

The following data were obtained from Mr. Arthur Gibson, Chief Assistant Entomologist, Ottawa, and I desire to record my appreciation and thanks for his courtesy.

#### ATTACKING GROWING GRAIN.

Grasshoppers.—Several complaints were received through Mr. W. H. Fairfield, Experimental Farm, Lethbridge, that these insects were destructive in certain localities immediately southeast of Lethbridge. No specimens were secured.

The Grain Aphis (*Macrosiphum granarium*).—Reports were received of the presence of these insects from a few localities. The injury, however, was not serious.

The Western Wheat Stem Sawfly (*Cephus occidentalis*) was rather widespread in certain prairie districts, and considerable damage in places was effected in Saskatchewan. We have no definite records of the insect occurring in 1917 in Alberta.

The Wheat Midge (*Diplosis tritici*)—A single report, which we think refers to the work of this insect, was received from North Fork, Alberta, and related to its presence on Prelude wheat.

#### ATTACKING GARDENS.

The Cabbage Maggot, "*Phorbia brassicae*," caused considerable damage to cabbages, radishes and cauliflower. It was reported particularly from the Edmonton district.

The Imported Onion Maggot, "*Hylemyia antiqua*," effected important injury to onions, being complained of especially from Keephills and Edmonton.

The Western Blister Beetle, "*Cantharis nuttalli*," was reported from Staveland doing injury to beans.

The Red Turnip Beetle, "*Entomocles adonidis*," was complained of from several localities; cabbages, turnips and radishes were badly attacked.

Odonata (Dragonflies).—At the last Annual Meeting I read a paper dealing with the twenty-seven varieties of dragonflies that I had taken up to that time in this district. During the past year I have added eight species to my list, and since most of these are of extreme rarity it would be well to record them here, viz:

- Nehalennia irene Hagen.
- Coenagrion interrogatun Selys.
- Somatochlora albicincta Burmeister.
- Somatochlora cingulata Selys.
- Somatochlora franklini Selys.
- Somatochlora minor Calvert.
- Somatochlora semicircularis Selys.
- Somatochlora septentrionalis Hagen.

Excepting the first mentioned, all were captured at Nordegg between July 11 and July 18, and with two exceptions, viz:—*S. albicincta* and *S. semicircularis*, all are new records for the Province of Alberta.

Lepidoptera (butterflies and moths). Coleoptera (beetles).—As stated in the Executive Report, there has been considerable activity on the part of our members during the past year in the study of these orders. In view of the fact, however, that all insects of special interest captured, are being systematic-



cally recorded year by year in the "Entomological Record," with the names of the collectors, there is no need to duplicate the information here. I mention the "Entomological Record" as a reference to future students in this Province, and I desire to emphasize the fact particularly that Alberta, as a field for entomological study, is still a rich and virgin paradise. The recorded data regarding the more popular orders are but partial at best, in the case of others, the work is virtually untouched.

#### SECRETARY-TREASURER'S REPORT.

Seven monthly meetings were held during the year, with an average attendance of ten members.

During the year the following papers were read:—

March 28.—Insect Pests; Mr. Whitehouse.

April 25.—Water-birds at Sylvan Lake; Mrs. W. A. Cassels. Birds of Alberta; Dr. H. George.

May 30.—Fishes of Alberta and Adjacent Waters; Mr. Whitehouse.

September 26.—Dragonflies; Mr. Whitehouse.

October 26.—Nature-study in Schools, its Difficulties; Miss M. Cole.

It was decided to suspend the ordinary meetings during the summer months, June, July and August. There was no Field Day this year, as it was found difficult to arrange an outing.

At the request of Mr. M. O. Nelson, Inspector of Schools, Wetaskiwin, this Society made a donation of \$10 for prizes to be awarded at the School Fair, for Natural History Collections. The money was distributed as follows:—

#### A. COLLECTION OF ALBERTA INSECTS.

1st prize, \$1.25, Star S.D., Miss Minnie Ringwall, teacher.

2nd prize, \$1.00, Pleasant Prairie S.D., John North, teacher.

#### B. COLLECTION OF WEED SEEDS.

1st prize, \$1.50, Weiler S. D., Miss Lillian Bailey, teacher.

2nd prize, \$1.25, Haultain S.D., Miss Nellie James, teacher.

3rd prize, \$1.00, Crooked Lake S.D., Miss B. Luther, teacher.

#### C. COLLECTION OF WEEDS OF ALBERTA.

1st prize, \$1.75, Cherry Grove S.D., Miss Mabel Poole, teacher.

2nd prize, \$1.25, Nashville S.D., Miss Ruby Schnare, teacher.

3rd prize, \$1.00, August Ridge S.D., Miss M. Creighton, teacher.

New members during the year, are Mr. K. Bowman, Mr. D. Mackie, Mr. S. Carr, Mr. and Mrs. Stickie, Miss Goudie and Rev. G. N. Finn. There are 36 names on our membership roll. This number, of course, does not include the Innisfail and Erskine branches.

Financial Statement, November, 1916, to November, 1917.

Balance at bank .....	\$169.94	
Government grant .....	100.00	
Members' subscriptions .....	4.25	
		\$274.19
Salary, Mr. Horsburgh .....	\$ 5.00	
Salary, Miss Fyson .....	20.00	
Prizes, Wetaskiwin Fair .....	10.00	
Herbarium Cabinet .....	16.10	
Printing, Advertising .....	9.45	
Postage, etc. ....	5.07	
Typing .....	5.00	
Livery .....	2.00	
Balance at bank .....	201.57	
		\$274.19



*APPENDIX TO THE REPORT OF  
THE LIVE STOCK COMMISSIONER*



Brooks	N. Stafford	1,762	1,184	564	119	4,233	2,781	2,465	5,216
Brooks	A. L. Young, Dpty.	47	279	96	183	103	382		382
Bruce	C. E. Cummins	2	443	11		615	554	72	626
Bruderheim	W. T. Egging	5	345	5		532	557		557
Burdett	Geo. Lomas	20							
Cadogan	J. McCartney	15	219	5					
Calgary	P. D. Sanders	2,381	9,290	972	340	12,797	7,087	233	350
Calgary	M. Sexsmith	1,259	1,819	875		16,018	8,876	7,022	14,109
Calgary	H. C. McMullen	4,705	6,790	56	92	493	634	8,017	16,893
Calgary	F. Jordison	143	255					7	641
Calgary	G. A. Roy, Dpty.	460	7,451	1		1	1		1
Camrose	C. S. Bailey, Dpty.	128	536	68	13	795	858	6,306	11,516
Camrose	W. G. Duggan							18	876
Cardiff	L. McLaughlin								
Cardston	R. A. Pilling	48	204		6	273	255	24	279
Carmanagay	Frel. Walter	121	106			197	197		197
Carmanagay	A. F. Wilson	41	87	5		115	120		120
Carseland	Camp. Evans, Dpty.	16	30	6		36	36		36
Carstairs	J. Gibson	68	670	2		803	518	287	805
Carstairs	E. A. Lancelot, Dty	107	570	442	113	754	1,012		1,012
Carvel	R. C. Howat								
Castor	Dr. A. A. Masker	44	325	57		420	220	274	494
Cayley	L. Beaton	90	2,990	82	274	4,219	3,534	1,021	4,555
Cereal	G. D. Osborne		13	5		13	18		18
Cereal	J. S. Reynolds	8	52	23		75	75		75
Champion	H. E. Gill								
Champion	W. A. Carmichael								
Chauvin	A. E. Keith		51	7		58	58		58
Chaudle	John McLean					15	17		17
Chigwell	A. Burnett					305	314	8	322
Chinook	W. R. Hawkshaw	66	194	1	16				
Chipman	Ed. Auld								
Chlaimont	A. M. Fraser		8	6		14	14		14
Claresholm	J. Workman	32	377			605	569	36	605
Clive	T. Breton	35	752	59	37	922	515	503	1,018
Claresholm	R. E. Moffatt	31	18			36	36		36
Chuny	D. Clarke	91	116	23	11	169	285	105	285
Cochrane	C. Grayson, Dpty.	65	336	269		583	500	105	605
Cochrane	G. M. Mortimer	154	741	432	17	1,042	784	389	1,173



Edmonton	A. W. Murphy	25	3	27	254	9	217	256	236
Edson	A. J. Fife	17	26	64	33	33	43	49	49
Elkhora	A. Hogg	47	394	215	351	53	889	623	322
Empress	H. H. Hall	118	289	131	131	10	109	56	364
Entwistle	S. S. Munroe	14	84	44	53	3	133	136	126
Erskine	F. Cormack	64	183	61	60	4	236	245	215
Etzkom	Wm. Thiel	133	181	133	35	13	293	111	216
Federal	F. Kilborn	147	337	147	716	16	840	799	854
Ferintosh	W. A. McIntyre	21	7	28	29	7	29	26	26
Fleet	J. F. Cameron	20	314	106	145	1	132	159	459
Forestburg	A. D. Medhurst	86	894	121	108	95	1,118	1,302	1,302
Forestburg	J. S. Ausherman	119	884	14	157	91	1,218	636	1,341
Ft. Saskatchewan	G. R. Ham	14	222	14	45	297	297	352	705
Gadsby	J. McElhone	14	130	14	15	3	170	175	45
Gainford	H. A. Kelly, Dpty	9	179	9	102	3	274	281	175
Galahad	Robnd Kyley	293	1187	161	587	3	1,767	1,755	1,774
Galehead	M. Kueffer	3	118	3	7	7	7	7	7
Gleichen	Thos. Henderson	37	77	37	25	5	143	143	143
Granger	John McLeod	96	126	184	193	75	291	319	100
Grande Prairie	H. W. Smith	88	126	184	193	13	291	319	319
Granum	P. Undervoort	37	77	37	25	5	143	143	143
Grassy Lake	R. L. Gold	96	126	184	193	75	291	319	100
Greenshields	Chas. F. Gibson	37	77	37	25	5	143	143	143
Gwynne	C. Maynard	37	77	37	25	5	143	143	143
Gwynne	C. Gwynne	37	77	37	25	5	143	143	143
Halkirk	W. Fulton	37	77	37	25	5	143	143	143
Hanna	G. R. Cope	92	2	94	345	2	934	521	429
Hardisty	A. W. Dickson	44	2	46	339	22	965	697	941
Hay Lake	R. R. McKay	44	2	46	174	41	482	266	1,012
Haynes	C. H. Bucknell	44	2	46	17	17	17	17	357
Hefler	H. H. Griffiths	44	2	46	17	17	17	17	17
Hespero	Geo. H. Macdonnell	44	2	46	157	60	217	217	217
High River	Wm. Irwin	161	32	193	27	58	85	85	217
High River	C. C. Chumley	16	32	16	221	9	661	674	674
High Prairie	Wm. Blair	35	20	55	116	6	178	188	188
Hobson	J. Kraemer	26	26	26	33	42	56	98	98
Holden	A. C. Brown	2	2	2	849	33	1,210	1,006	204
Hughenden	J. J. Martineau	17	3	50	318	48	506	61	445
Hussar	J. H. Dundas	17	3	50	217	48	2,568	470	1,952

Shipping Point	Local	HORSES		Male	Female	Calves	Yr'lings	CATTLE			Local	Export	Total
		Export	Total					Mature	Mature	Local			
Haxley	58	.....	58	111	185	7	.....	291	.....	274	24	298	
Idleough	1	.....	4	2	32	.....	3	31	.....	34	.....	34	
Innisfail	485	79	564	317	299	111	69	436	.....	588	28	616	
Innisfail	244	.....	244	898	528	20	90	1,316	.....	1,426	.....	1,426	
Innisfree	16	.....	16	141	99	20	30	190	.....	220	20	240	
Irma	21	.....	21	615	250	7	21	837	.....	394	471	865	
Irricana	123	20	143	247	192	9	.....	430	.....	400	39	439	
Irvine	104	111	215	1,048	430	11	87	1,380	.....	1,165	313	1,478	
Islay	33	33	66	870	278	5	.....	1,143	.....	777	371	1,148	
Jarrow	.....	.....	.....	8	41	6	.....	43	.....	5	44	49	
Jasper	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Jenner	164	.....	164	647	215	1	22	836	.....	463	399	862	
Keema	15	.....	15	62	30	6	5	81	.....	92	.....	92	
Kirriemuir	8	.....	8	25	.....	.....	.....	25	.....	25	.....	25	
Killam	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Kingham	18	.....	18	459	204	45	2	616	.....	614	49	663	
Kinsella	.....	.....	.....	97	40	2	.....	135	.....	85	52	137	
Kitscoty	.....	.....	.....	462	87	1	11	537	.....	248	301	549	
Lac La Biche	169	.....	169	65	35	.....	.....	100	.....	100	.....	100	
Lacombe	867	98	965	1,571	968	78	83	2,378	.....	2,245	294	2,539	
Lamont	55	26	81	1,267	820	64	22	2,001	.....	2,087	.....	2,087	
Lavoy	.....	.....	.....	69	38	.....	2	105	.....	107	.....	107	
Leche	.....	27	27	50	28	12	8	58	.....	78	.....	78	
Leche	19	26	45	1,02	610	164	378	1,150	.....	1,692	.....	1,692	
Leithbridge	861	173	1,034	1,363	1,910	582	234	2,407	.....	2,701	572	3,273	
Lloydminster	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Lougheed	8	.....	8	122	65	5	7	175	.....	158	29	187	
Lousana	3	.....	3	113	62	.....	.....	175	.....	175	.....	175	
Loyalist	20	.....	20	6	9	4	.....	11	.....	10	5	15	
Macraeth	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Macleod	299	338	637	683	319	31	5	966	.....	877	125	1,002	
McLennan	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Manville	.....	3	3	1,248	590	171	.....	1,667	.....	707	1,131	1,838	
Manville	332	64	396	326	265	29	65	497	.....	591	.....	591	
Manville	3	.....	3	10	3	1	.....	12	.....	13	.....	13	



Shipping Point	Inspector	HORSES			CATTLE							
		Local	Export	Total	Male	Female	Calves	Yearlings	Mature	Local	Export	Total
Panther Creek	S. W. Berry	123	22	145	10	2			12	5	37	42
Plain Lake	M. Tomyn											
Ponoka	W. E. Turner	158	19	177	920	706	62	110	1,454	1,586	41	1,626
Provost	T. Merrell	10	2	12	439	54			493	67	426	493
Purple Springs	G. R. Palfrey				29	25			54	54		54
Ranfurly	J. A. McDonald	16		16	534	319	2	33	818	778	75	853
Raymond	T. J. O'Brien											
Redcliff	J. Ellis											
Red Deer	W. W. Parcher, Dy.	445	210	655	622	401	29	57	937	997	26	1,023
Redlands	Donald Martin	17		17	85	23			108	108		108
Red Willow	J. Struthers				158	57	15	36	161	215		215
Redlaw	W. C. Lane	11		11		2			2	2		2
Rochester	A. McDonald											
Rockyford	A. Haughman	8		8	2	52	1		53	54		54
Rockyford	J. Bragg	39		39	840	523	136		1,227	811	552	1,363
Rocky M't. House	E. W. Allen											
Rosebud	J. Martin	392	159	551	37	82		4	115	119		119
Round Hill	Wm. Ross	47		47	9				9			9
Rowley	S. Cornish	21		21	37	15	3		49	52		52
Rumsey	C. Backus	104	46	150	61	33		11	84	97		97
Ryley	P. P. Kjosness	13	23	36	128	242	13		657	665	5	670
Saugando	Wm. H. Albers	42		42	105	236	7	53	581	640	1	641
Seollard	C. S. Thompson				290	97			387	387		387
Sedgewick	N. E. Rose, Dpty.	66	2	68	180	58	2		536	403	135	538
Seven Persons	T. O. Nestling											
Seven Persons	H. Bergman, Dpty.	70	31	101	711	215	12	86	828	283	643	926
Sexsmith	T. B. Foster											
Spirit River	G. Bremner	40		40	29	10			39			39
Spring Coulee	H. E. Kelly	66	35	101	523	452	10	1	964	173	802	975
Spruce Grove	E. Guinette	59		59	74	62		52	81	136		136
St. Albert	T. H. Saunders	40		40	78	29	8		99	72	35	107
Stavely	E. C. Webster											
Standard	A. Jensen	14		14	276	549	56	30	739	825		825
Standard	J. Lawrence	6		6	97	47	3		141	144		144
Stettler	J. C. Blain	22		22	47	360		41	363	392	15	407



Stettler .....	R. D. Baillantine	566	16	582	1,262	1,288	40	160	2,350	1,965	585	2,550
Stirling .....	M. Millar	....	....	....	29	7	....	....	36	36	....	36
Stony Plain .....	M. J. Gordon	....	....	42	352	429	71	29	681	781	....	781
St. P. des Metis .....	E. F. Trudell	....	....	....	....	....	....	....	....	....	....	....
Strathcona .....	G. A. McDonald	292	72	364	338	290	33	99	496	536	92	628
Strathmore .....	O. Moorehouse	61	63	124	471	472	60	1	882	841	102	943
Strome .....	W. T. Phipps	55	16	71	511	231	14	62	666	635	107	742
Suffield .....	N. Rutherford	....	8	8	....	....	....	....	....	....	....	....
Swalwell .....	F. W. Currie	117	....	117	471	164	31	....	604	635	....	635
Swan River .....	M. Whitecotton	8	....	8	27	15	....	2	40	42	....	42
Sylvan Lake .....	W. C. Petro	....	5	5	118	49	....	5	162	165	2	167
Taber .....	J. B. Jett	....	....	....	....	....	....	....	....	....	....	....
Tawatinau .....	H. Sparkes	....	....	....	....	....	....	....	....	....	....	....
Tees .....	C. D. McMillan	....	....	....	181	90	22	9	240	271	....	271
Three Hills .....	C. P. McDonough	15	....	15	10	4	....	....	14	14	....	14
Tofield .....	A. S. Smith	62	59	121	672	508	88	38	1,054	1,090	90	1,180
Trochu .....	H. Durrant	236	5	241	896	389	46	41	1,198	1,216	69	1,285
Vegreville .....	A. A. Harkness	16	11	27	865	161	22	....	1,904	995	31	1,026
Vermilion .....	H. O. Wood	75	38	113	396	68	16	46	312	172	202	374
Vermilion .....	W. B. Nellis	38	....	38	450	182	....	....	632	624	88	632
Veteran .....	H. Bidleman	30	....	30	235	85	16	28	276	200	120	320
Veteran .....	F. O. Pringle	....	....	....	100	71	....	....	171	70	101	171
Viking .....	P. N. Kjosness	....	....	....	....	....	....	....	....	....	....	....
Vulcan .....	G. Todd	....	....	....	....	....	....	....	....	....	....	....
Wabamun .....	S. White	25	36	61	55	70	6	25	94	119	....	125
Wainwright .....	J. W. Brown	59	40	99	1,072	506	102	98	1,378	628	950	1,578
Walsh .....	J. W. Roberts	54	14	68	379	271	21	2	627	286	364	650
Warner .....	G. W. Morton	17	....	17	73	120	11	....	182	193	....	193
Westlock .....	O. Guest	2	....	2	557	365	27	50	845	922	....	922
Westskwin .....	Dr. N. A. Johnson	240	82	322	1,351	845	182	287	1,727	2,174	17	2,196
Wetaskiwin .....	A. Johnson, Dpty.	167	26	193	374	165	27	156	356	409	130	539
Whitla .....	G. Murray	....	....	20	31	20	....	13	38	51	....	51
Wrentham .....	C. B. Perkins	....	....	....	....	....	....	....	....	....	....	....
Youngstown .....	G. Parsons	....	....	....	....	....	....	....	....	....	....	....
Youngstown .....	E. Avery	....	....	....	....	....	....	....	....	....	....	....
		26,408	9,367	35,775	129,419	68,871	10,062	8,013	180,215	138,971	59,319	198,290

## ESTRAY, ENTIRE AND IMPOUNDED ANIMALS.

Amount collected from the sale of estray, entire and impounded animals during the year 1917 .....	\$8,009.92
Amount refunded during the year 1917 .....	814.91

## POUND DISTRICTS.

There were four pound districts organized during the year 1917, as follows:

Township	Range	
35 .....	3	} West of the 4th Meridian.
35 .....	4	
13 .....	4	
3 .....	10	
33 .....	1 and 2	} West of the 4th Meridian.
34 .....	1 and 2	
35 .....	1 and 2	

*APPENDIX TO THE REPORT OF THE  
SUPERINTENDENT OF FAIRS AND INSTITUTES*

## OFFICIAL JUDGES, 1917.

The following are the names and addresses of judges who made the awards at the fairs held in the Province during the year 1917, together with the names of the fairs and the classes judged:

NAMES & ADDRESSES OF JUDGES		CLASSES JUDGED	LIST OF FAIRS
Rawlinson, Tom, Innisfail, Alta.	.....	Draft horses	Crossfield, Medicine Hat, Irma, Lomond, Peace River, Westlock, Chauvin, Wainwright, Dunstable, Holden, Vermilion, Glenreagh, Tofield, Bashaw, Lacombe.
Lowes, W. R., Edmonton, Alta.	.....	Horses	Crossfield, Red Deer, Lacombe, High River, Okotoks, Kitscoty, Nanton, Stavely, Claresholm, Vulcan, Granum, Macleod, Alix, Carmangay, Langdon, Medicine Hat, Rocky Mountain House, Vermilion, Fort Saskatchewan, Lloydminster, Innisfree, Mannville, Morinville.
McNally, J. H., Olds, Alta.	.....	Cattle, etc.	Crossfield, Medicine Hat, Taber, Magrath, Etzikom, Suffield, Swallow, Redlaw.
McKirdy, J., Napinka, Man.	.....	Clydesdale horses	Calgary.
Meyer, A. E., Edmonton, Alta.	.....	Cattle, etc.	Red Deer, Vermilion, Athabasca, Lloydminster, Holden, Tofield.
Hutton, G. S., Lacombe, Alta.	.....	Cattle, etc.	Colinton, Dunstable, Entwistle, Onoway, Glenreagh, Nakamun, Westlock, Busby.
Hutton, G. H., Lacombe, Alta.	.....	Hogs	Red Deer.
Boag, John A., Queensville, Ont.	.....	Clydesdale horses	Edmonton.
Graham, R., Toronto, Ont.	.....	Light horses	Edmonton.
Galbraith, A. R., Garfield, Wash.	.....	Horses	High River, Okotoks, Claresholm, Stavely, Vulcan, Stony Plain, Swallow, Sedgewick, Wetaskiwin, Strone-Killam, Daysland, Trochu, Camrose, Cochrane, Milnerton, Didsbury, Colinton, Athabasca, Priddis, Bowden, Lake Saskatchewan, Grande Prairie, Griffin Creek, Waterhole, Spirit River, Provost.
Curtiss, C. F., Ames, Iowa	.....	Percheron horses	Calgary.
Carlyle, W. L., Stillwater, Que.	.....	Hereford and Angus cattle	Edmonton.
	.....	Beef cattle	Calgary.
	.....	Percheron horses	Edmonton.
Stephen, W. H., Huntingdon, Que.	.....	Dairy cattle	Calgary, Red Deer.
Wilson, J., Kneehill Valley, Alta.	.....	Sheep, cattle, etc.	Calgary, Lacombe, High River, Okotoks, Sedgewick, Wetaskiwin, Provost, Bowden, Strone-Killam, Camrose, Cochrane, Didsbury, Trochu, Priddis, Nanton.

Murphy, A. J., Cochrane, Alta.	Light horses	Red Deer.
Laycock, T., Calgary, Alta.	Horses	Irvine, Winnifred, Oyen, Entwistle, Munson, Pandora, Nakamun, Onoway, Busby.
McMillan, G. R., Claresholm, Alta.	Cattle	Stavely, Claresholm, Medicine Hat, Vulcan, Granum, Carmangay, Lomond, Langdon.
Stericker, R. P., Chicago, Ill.	Cattle	Irvine, Winnifred, Cardston.
Wetherall, F. S., Calgary, Alta.	Cattle	Magrath, Taber, Etzikom, Olds, Sutherland, Redhaw, Vegreville, Edger- ton, Cochrane, Didsbury, Lousana, Leduc, Innisfail.
Marshall, J., Edmonton, Alta.	Cattle	Youngstown, Chinook, Hanna, Oyen, Munson, Lousana, Delia
Dowell, Prof. A. A., Edmonton, Alta.	Cattle	Pearce River, Edgerton.
Eadle, A. G., Edmonton, Alta.	Cattle	Vegreville, Stony Plain, Camrose, Weta-skiwin, Innisfail, Milberton, Fort Saskatchewan, Mannville, Ponoka, Kelseo, Vermilion, Lloydminster, Rocky Mountain House.
Scott, H. W., Claresholm, Alberta.	Cattle	Irma, Chauvin, Morinville, Wainwright, Bashaw
Campbell, A. M., Stettler, Alta.	Cattle	Coronation, Stettler, Morinville, Consort, Castor, Innisfail, Bideford, Gadsby, Milnerton, Bashaw, Bowden.
McKinnon, W. S., Olds, Alta.	Cattle	Daysland, Viking.
McGorman, A., Innisfail, Alta.	Cattle	Coronation, Bideford, Stettler, Consort, Castor
McIntyre, H. H., Stony Plain, Alta.	Horses	Edson.
Durno, J. W., Calgary, Alta.	Draft horses	Leduc, Olds, Gadsby, Edson.
Carlyle, S. G., Edmonton, Alta.	Cattle	Viking.
Roberts, F., Vegreville, Alta.	Cattle	Priddis, Trochu.
Gaudin, J. A., Stettler, Alta.	Horses and cattle	Fort Saskatchewan
Rankin, A., Edmonton, Alta.	Cattle	Innisfree.
Clements, J., Edmonton, Alta.	Cattle	St. Paul, Bonnyville, Elk Point.
Stephen, W. J., Claresholm, Alta.	Horses	Lake Saskatoon, Grande Prairie, Waterhole, Griffin Creek, Spirit River.
Smith, H., Hays, Ont.	Horses	Alex.
Ballantyne, W. W., Stratford, Ont.	Shorthorn cattle	Youngstown, Chinook, Innisfail, Hanna, Delia, Ponoka.
Armstrong, G. B., Teeswater, Ont.	Dairy cattle	Cardston.
Elliott, W. J., Olds, Alta.	Sheep	Edmonton.
Gabraith, A. G., Edmonton, Alta.	Hogs	Edmonton.
	Draft horses	Lloydminster.

LIST OF AGRICULTURAL SOCIETIES AND SECRETARIES FOR 1917.  
WITH DATES OF FAIRS.

SOCIETY	DATE	SECRETARY	ADDRESS
Alix .....	Sept. 21 .....	W. L. Pettet .....	Alix
Bashaw .....	Sept. 25 .....	A. J. Frank .....	Bashaw
Berry Creek (Panda)	Sept. 7 .....	L. E. Helmer .....	Nateby
Boucher (Bonnyville)	Sept. 10 .....		
Bowden .....	Oct. 5 .....	K. B. Bernard .....	Bowden
Busby .....	Sept. 15 .....	S. E. Hayward .....	Busby
Camrose .....	Aug. 16-18 .....	J. D. Saunders .....	Camrose
Cardston .....	Aug. 17-18 .....	J. E. Harris .....	Cardston
Carmangay .....	Aug. 14-15 .....	A. E. Quayle .....	Carmangay
Castor .....	Aug. 16-17 .....	L. B. Browne .....	Castor
Chauvin .....	Aug. 1 .....	L. D'Albertanson .....	Chauvin
Chinook .....	Aug. 8 .....	Lorne Proudfoot .....	Chinook
Claresholm .....	Aug. 1-2 .....	J. R. Watt .....	Claresholm
Cochrane .....	Sept. 4-5 .....	A. Chapman .....	Cochrane
Consort .....	Aug. 14-15 .....	W. DeWolfe .....	Consort
Coronation .....	Aug. 7-8 .....	T. N. Cuthbert .....	Coronation
Crossfield .....	June 20-21 .....	J. W. McIntosh .....	Crossfield
Daysland .....	Aug. 14-15 .....	A. A. P. McDowell .....	Daysland
Deseret .....	Aug. 10-11 .....	Ed. Hodges .....	Magrath
Didsbury .....	Sept. 5-6 .....	Parker Reed .....	Didsbury
Edgerton .....	Aug. 17 .....	Wm. H. Hallett .....	Edgerton
Edson .....	Sept. 14 .....	Martin Kroeger .....	Edson
Elk Point .....	Sept. 7 .....	Chas. Hood .....	Elk Point
Entwistle .....	Sept. 13 .....	H. E. Smith .....	Entwistle
Etzikom .....	Aug. 28-29 .....	Jas. Sargeant .....	Etzikom
Fort Saskatchewan	Sept. 4-5 .....	G. T. Montgomery .....	Ft. Saskatchewan
Gadsby .....	Sept. 22 .....	H. A. Kelly .....	Gadsby
Grande Prairie .....	Sept. 17-18 .....	A. C. McEachern .....	Grande Prairie
Granum .....	Aug. 7-8 .....	James Blair .....	Granum
Griffin Creek .....	Sept. 24-25 .....	O. B. Winterstein .....	Griffin Creek
Hanna .....	Aug. 9 .....	L. I. Stuart .....	Hanna
Hays (Lousana) .....	Sept. 13-14 .....	R. N. Scott .....	Lousana
Highland (Delia) .....	Aug. 10 .....	J. P. McBeath .....	Delia
High River .....	July 19-20 .....	A. J. W. Thompson .....	High River
Holden .....	Sept. 21 .....	N. L. Campbell .....	Holden
Innisfail .....	Sept. 19-20 .....	W. G. McArthur .....	Innisfail
Innisfree .....	Sept. 6-7 .....	L. M. Trace .....	Innisfree
Irma .....	July 31 .....	F. W. Watkinson .....	Irma
Irvine .....	Aug. 7 .....	F. J. Crewe .....	Irvine
Kitscoty .....	Sept. 14-15 .....	T. H. Currie .....	Kitscoty
Lacombe .....	July 17-18 .....	A. J. Cameron .....	Lacombe
Langdon .....	Aug. 16 .....	Walter Allcock .....	Langdon
Leduc .....	Sept. 17-18 .....	W. M. Molyneaux .....	Leduc
Lloydminster .....	Sept. 18-19 .....	H. Huxley .....	Lloydminster
Lomond .....	Aug. 6-7 .....	Rae L. King .....	Lomond
Macleod .....	Aug. 9-10 .....	T. A. Powell .....	Macleod
Mannville .....	Sept. 11 .....	C. B. Woods .....	Mannville
Medicine Hat .....	July 10-13 .....	G. W. McClafferty .....	Medicine Hat
Mid-Pembina (Dunstable)	Sept. 4 .....	A. D. Gilmer .....	Dunstable
Milnerton .....	Sept. 28 .....	Jas. McKenzie .....	Wimborne
Munson .....	Aug. 15 .....	L. C. Jackson .....	Munson
Nakamun .....	Sept. 11 .....	Jno. Mathewson .....	Nakamun
Nanton .....	July 26-27 .....	Wm. Robertson .....	Nanton
North Alberta (Colinton)	Aug. 28 .....	N. O. Jack .....	Colinton
Okotoks .....	July 24-25 .....	E. A. Hayes .....	Okotoks
Olds .....	Sept. 7-8 .....	Walter Bliss .....	Olds
Onoway .....	Sept. 12 .....	A. A. Brown .....	Onoway

SOCIETY	DATE	SECRETARY	ADDRESS
Oyen .....	Aug. 13-14 .....	J. S. Thomson .....	Oyen
Paddle River .....	Sept. 6 .....	Mrs. H. D. Burch .....	Glenreagh
Peace River .....	Aug. 8-10 .....	D. J. Johnston .....	Peace River
Pincher Creek .....	July 2 .....	J. W. Harwood .....	Pincher Creek
Ponoka .....	Sept. 26-27 .....	T. W. Hutchinson .....	Ponoka
Priddis and Millarville .....	Oct. 6 .....	H. D. Wheeler .....	Priddis
Provost .....	Aug. 9 .....	S. F. Burgess .....	Provost
Rawdonville .....	July 26-27 .....	F. B. White .....	Swalwell
Red Deer .....	July 5-7 .....	G. H. Lindsay .....	Red Deer
Retlaw .....	Aug. 3-4 .....	F. A. Stuart .....	Retlaw
Rocky Mountain House .....	Sept. 24-25 .....	G. T. Thomson .....	Rocky Mtn. Hse.
Saskatoon Lake and Beaver Lodge .....	Sept. 13-14 .....	H. Cooper .....	Lake Saskatoon
Sedgewick .....	Aug. 7 .....	E. D. LeRiche .....	Sedgewick
Spirit River .....	Sept. 11 .....	D. J. Esplen .....	Spirit River
St. Albert and Morinville .....	Oct. 4-5 .....	J. H. Desnoyers .....	Morinville
Stavely .....	July 31 .....	J. F. Rea .....	Stavely
Stettler .....	Aug. 10-11 .....	G. T. Day .....	Stettler
Stony Plain .....	Aug. 15-16 .....	Wm. Robertson .....	Stony Plain
St. Paul .....	Sept. 5 .....	Ed. Rousseau .....	St. Paul
Strome-Killam .....	Aug. 10 .....	R. T. Stevens .....	Strome
Suffield .....	Aug. 1-2 .....	Colin Dewhurst .....	Suffield
Taber .....	Aug. 23-24 .....	Ed. T. Westlake .....	Taber
Tofield .....	Sept. 22 .....	J. W. Frances .....	Tofield
Trochu .....	Oct. 2-3 .....	R. H. Slipp .....	Trochu
Vegreville .....	Aug. 14-15 .....	Charles Fulton .....	Vegreville
Vermilion .....	Sept. 12-13 .....	Job Mace .....	Vermilion
Viking and Birch Lake .....	Sept. 20 .....	Wm. McAthey .....	Viking
Vulcan .....	Aug. 2-3 .....	W. A. Howes .....	Vulcan
Wainwright .....	Aug. 2-3 .....	S. D. Mills .....	Wainwright
Waterhole .....	Sept. 20-21 .....	D. M. Kennedy .....	Waterhole
Westlock .....	Sept. 5 .....	A. R. Brown .....	Westlock
Wetaskiwin .....	Aug. 21-22 .....	R. N. Shaw .....	Wetaskiwin
Wheatsheaf (Bideford) .....	Aug. 21 .....	J. Stokoe .....	Wilhelmina
Winnifred .....	Aug. 8 .....	R. A. Parker .....	Winnifred
Youngstown .....	Aug. 6-7 .....	C. A. Nelson .....	Youngstown

## EXHIBITION ASSOCIATIONS.

Athabasca .....	Aug. 31, Spt. 1 .....	C. H. Pratt .....	Athabasca
Calgary .....	June 28-July 5 .....	E. L. Richardson .....	Calgary
Edmonton .....	July 9-14 .....	W. J. Stark .....	Edmonton

## FINANCIAL STATEMENT OF AGRICULTURAL SOCIETIES.

S.	SOCIETY	Grants received	Receipts	Expenditure	Balance on Hand	Assets	Liabilities	Date of Exhibition	No. of ex- hibitions
1	Cardston	\$1,329.33	\$2,054.25	\$4,404.25	\$...	\$6,426.26	\$2,550.00	Aug. 17-18	550
2	Magrath	1,167.58	5,983.50	5,963.87	19.63	3,789.60	970.00	Aug. 10-11	734
3	Didsbury	700.20	2,002.58	1,972.97	30.61	30.61	700.20	Sept. 6	711
4	Innisfall	1,750.66	5,099.55	5,059.29	40.66	6,912.66	3,789.85	Sept. 17-18	1,002
5	Lacombe	1,328.33	8,362.84	8,039.71	323.13	14,026.77	6,196.90	July 17-18	540
6	Red Deer	3,150.00	13,804.23	13,818.85	...	3,655.00	3,419.15	July 5-6-7	1,268
7	Macleod	1,413.66	5,303.91	5,118.43	155.48	2,063.68	3,323.63	Aug. 9-10	1,353
8	Medicine Hat	...	12,017.32	14,312.16	78.13	2,494.84	200.00	July 10-13	1,418
9	Olds	693.86	2,734.38	2,656.25	78.13	4,484.13	3,624.46	Sept. 11	680
10	Pincher Creek	316.33	1,398.30	1,397.43	1.08	417.91	105.00	Oct. 2	380
11	Ponoka	1,135.18	3,836.47	3,688.85	147.62	1,117.62	1,250.00	Sept. 26-27	766
12	Raymond	1,671.70	3,909.56	2,575.54	1,334.02	4,184.02	...	...	...
13	...	...	...	...	...	...	...	...	...
14	Okotoks	843.16	2,199.87	2,170.31	29.56	1,829.56	800.00	July 24-25	352
15	Vegreville	1,619.60	4,115.00	4,330.65	111.35	240.05	1,320.05	Aug. 14-15	951
16	Wetaskiwin	1,756.66	5,660.68	5,580.07	80.61	3,466.55	3,113.25	Aug. 21-22	1,223
17	Leduc	2,169.50	6,230.15	6,068.62	161.53	2,350.35	2,651.28	Sept. 17-18	798
18	Nanton	520.66	1,744.71	1,358.90	385.81	385.81	...	July 26-27	269
19	Vermilion	1,942.96	9,860.85	8,950.04	910.81	8,316.81	8,177.46	Sept. 12-13	2,625
20	High River	813.33	3,268.83	3,213.50	55.33	1,555.33	8.00	July 19-20	454
21	Pridits & Millarville	727.66	1,619.55	1,630.41	19.14	19.14	500.00	Oct. 6	369
22	Viking	995.16	3,069.37	2,997.92	71.45	1,325.44	966.00	Sept. 20	1,269
23	Morinville	1,311.66	4,463.89	4,012.08	451.81	2,095.99	2,599.50	Oct. 4-5	430
24	Mannville	1,374.57	4,765.12	4,477.25	287.87	1,973.37	1,900.00	Sept. 11	1,107
25	Stettler	897.00	4,587.98	4,536.23	49.75	3,063.75	1,481.55	Aug. 10-11	450
26	Daysland	810.16	5,076.88	5,008.86	68.02	1,521.19	1,150.00	Aug. 14-15	882
27	Clareholm	696.60	3,385.70	3,385.65	.15	.15	842.20	Aug. 1-2	635
28	McIntosh	913.66	2,758.97	2,621.28	137.69	1,379.41	1,090.00	Sept. 26	450
29	Irvine	758.67	1,810.82	2,140.58	...	2,431.93	1,014.15	Aug. 7	539
30	Taber	1,998.43	...	...	...	...	...	...	...
31	Innisree	1,912.66	5,616.74	5,493.95	122.79	1,859.45	2,019.50	Sept. 6-7	834
32	Sedgewick	1,315.66	5,043.28	4,969.73	73.55	3,201.74	2,249.51	Aug. 7	612
33	Alx	285.96	831.11	1,527.00	...	393.56	695.89	Sept. 21	348



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34	Lloydminster	\$3,228.00	\$11,145.96	\$10,149.35	\$	3.39	\$	3,131.75	\$3,353.39	Aug. 18-19	1,689
35	Camrose	2,021.83	10,014.76	10,152.18		137.42			1,137.42	Aug. 16-18	1,314
36	Gleichen	386.66									
37	Three Hills	702.66									
38	Irma	2,801.25		2,676.24	125.01			2,475.01	950.00	July 31	533
39	Crossfield	1,318.61	5,028.73	4,992.43	36.30			6,050.30	3,273.00	June 20-22	682
40	Beardo										
41	Bowden	636.33	2,013.78	1,933.53	80.25			380.25	575.00	Oct. 5	681
42											
43											
44	Rexboro and District	420.33		1,756.40	54.58			184.58	625.00	Sept. 21	570
45	Holden	771.36	1,810.98	2,357.65	8.52			1,040.52	951.00	Sept. 4-5	508
46	Cochrane	1,139.17	2,366.17	3,081.87	119.19			5,064.39	1,053.00	July 31	508
47	Stavely	910.76	3,921.06	2,623.97	34.21			1,938.61	1,938.20	Sept. 22	731
48	Tofield	880.93	2,658.18	4,019.44	147.20			1,651.05	975.00	Aug. 10	788
49	Strome-Killam	712.06	4,166.64	4,211.96	66.14			4,781.14	2,200.00	Oct. 3	1,024
50	Trochu	1,125.00	1,278.10	2,667.33				56.00	91.67	Sept. 4-5	988
51	Fort Saskatchewan	1,242.16	2,667.33	2,998.01	20.84			1,120.84	250.00	Aug. 7-8	701
52	Granum	1,087.66	3,018.85	1,938.00	16.08			1,101.08	871.00	Aug. 16	382
53	Langdon	690.33	1,954.08	2,833.39	65.15			5,276.37	1,204.00	Sept. 17-18	461
54	Grande Prairie	700.66	2,898.54	1,568.95					290.00	Aug. 16-17	255
55	Castor	551.00	1,278.95	2,532.85	216.82	2,00.00		1,463.82	1,000.00	Sept. 15	988
56	Kincaidy	993.13	2,749.67	3,623.65	343.83			2,727.86	2,108.80	Aug. 16	
57	Stony Plain	1,550.26	3,967.48	2,532.85	844.68						
58	High Prairie	56.00	473.31	198.63	274.68			844.68	730.00	July 27-28	515
59	Swallow	884.56	2,345.41	2,276.25	69.16			3,296.91	600.00	Sept. 13	658
60	Entwistle	745.96	1,836.72	1,790.78	45.94			724.78		Aug. 14-15	719
61	Carmangay							1,376.19	776.30	Aug. 9	654
62	Provost	625.50	2,283.13	2,241.60	41.53				300.00	Sept. 4	514
63								509.56			
64	Mid Pembina	329.50	901.37	881.95	19.42				350.00	Sept. 6	614
65	Hardisty							1,241.26			
66	Paddle River	513.33	2,162.51	2,121.25	41.26						
67											
68											
69	Elk Point	274.70	798.07	774.59	23.48			273.48	300.00	Sept. 7	379
70	Wainwright	1,048.33	3,371.48	3,377.99		6.51		1,515.00	1,414.46	Aug. 2-3	715
71	North Alberta	861.33	3,332.50	3,117.65	214.85			2,356.26	1,724.00	Aug. 28	821
72	Edgerton	1,261.82	3,181.62	3,105.96	75.66			2,964.41	650.00	Aug. 17	652

## FINANCIAL STATEMENT OF AGRICULTURAL SOCIETIES (Continued)

No.	SOCIETY	Cash Paid 1917	Total Receipts	Total Expended	Balance on Hand	Carry-Over	Assets	Liabilities	Date of Statement	No. of Members
73	Munson	\$ 634.66	\$1,923.12	\$1,864.33	\$ 58.79	.....	\$1,004.09	\$ 789.45	Aug. 15	479
74	Local	66.00	253.83	91.60	162.23	.....	512.23	.....	.....	.....
75	Chauvin	522.50	1,930.44	1,930.89	2.55	.....	1,514.21	500.00	Aug. 1	416
76	Local - Saskatchewan	1,142.66	3,585.19	3,585.50	11.31	.....	1,411.71	2,000.00	Sept. 13-14	580
77	Onoway	328.33	1,130.34	992.93	137.41	.....	1,224.91	556.55	Sept. 12	460
78	Nakamun	511.66	850.18	844.45	5.73	.....	120.73	367.00	Sept. 11	409
79	Pasquia	1,063.33	2,928.15	2,808.00	120.15	.....	3,495.95	2,444.25	Sept. 13-14	775
80	Hays	719.16	2,908.99	2,908.99	.....	.....	4,076.83	2,268.51	Aug. 7-8	691
81	Coronation	458.66	1,133.76	1,043.75	90.01	.....	483.67	423.00	Sept. 25-26	438
82	Griffin Creek	.....	.....	.....	.....	.....	.....	.....	.....	.....
83	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
84	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
85	Winnifred	302.00	2,463.70	2,430.45	33.25	.....	4,111.75	1,800.00	Aug. 8	289
86	Gadsby	369.50	897.65	887.58	10.07	.....	317.07	225.00	Sept. 22	244
87	Edson	769.00	1,386.52	1,431.05	44.53	.....	226.30	48.33	Sept. 14	727
88	Spirit River	.....	692.13	737.10	44.97	.....	100.00	121.92	Sept. 11	249
89	Chinook	517.83	3,683.06	3,619.14	63.92	.....	2,181.92	1,386.79	Aug. 8	375
90	Youngstown	419.46	2,871.86	2,839.88	31.98	.....	4,324.48	3,050.00	Aug. 7	506
91	Consort	730.05	3,425.95	1,997.68	1,422.27	.....	.....	.....	Aug. 14-15	546
92	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
93	Rocky Mountain Hse.	393.00	773.15	757.15	16.00	.....	21.18	.....	Sept. 24-25	454
94	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
95	Manxberries	.....	188.00	180.85	7.15	.....	7.15	50.00	.....	.....
96	Westlock	965.33	1,244.78	1,129.90	114.88	.....	598.88	310.00	Sept. 8	501
97	St. Paul des Metis	342.50	1,246.48	1,261.11	14.63	.....	155.21	624.68	Sept. 5	317
98	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
99	Wheatshaf	283.80	834.74	771.03	63.71	.....	457.05	390.75	Aug. 21	356
100	Highland	1,402.44	507.23	1,394.63	7.81	.....	592.31	365.00	Aug. 10	93
101	Empress	100.00	373.18	354.00	19.18	.....	169.18	.....	.....	.....
102	Hann	412.16	3,437.17	3,362.41	74.76	.....	2,292.83	1,140.00	Aug. 9	850
103	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
104	Bashaw	.....	830.15	830.15	.....	.....	451.50	250.00	Sept. 25	619
105	Vulcan	229.16	3,244.22	3,325.59	18.67	.....	2,242.81	1,267.27	Aug. 23	231

[illegible]

## EXHIBITION ASSOCIATIONS

[illegible]



33	Allx .....	\$ 414.85	\$ ..	\$ ..	\$ ..	\$ ..	\$ ..	\$ ..	\$ 333.57
34	Lloydminster .....	6,115.80	625.00	94.00	..	..	..	..	3,244.00
35	Camrose .....	5,303.85	1,109.89	58.00	..	..	..	..	3,058.00
36	Gleichen .....	..	..	..	..	..	..	..	..
37	Three Hills .....	..	..	..	..	..	..	..	..
38	Irma .....	727.75	..	..	..	..	..	..	928.67
39	Crossfield .....	2,067.38	525.31	102.00	98.50	..	..	..	1,528.25
40	Benalto .....	..	..	..	..	..	..	..	..
41	Bowden .....	777.75	..	71.00	..	..	..	..	659.50
42	..	..	..	..	..	..	..	..	..
43	..	..	..	..	..	..	..	..	..
44	Rexboro & District .....	..	..	..	..	..	..	..	..
45	Holden .....	857.60	..	..	..	..	..	..	705.73
46	Cochrane .....	859.50	..	39.00	..	..	..	86.00	792.00
47	Stavely .....	1,108.80	350.75	68.00	..	..	..	..	951.29
48	Tofield .....	931.50	..	50.00	..	..	..	..	817.00
49	Strome-Killam .....	976.25	..	56.00	..	..	..	..	856.82
50	Trochu .....	1,467.00	..	..	..	..	..	..	1,061.00
51	Ft. Saskatchewan .....	1,743.00	48.00	..	..	..	..	..	1,282.00
52	Granum .....	1,250.00	301.65	..	..	..	..	..	983.33
53	Langdon .....	972.00	..	93.00	..	..	..	..	835.00
54	Grande Prairie .....	807.00	109.50	..	..	..	..	..	644.00
55	Castor .....	682.50	227.00	..	..	..	..	..	713.00
56	Kitcooty .....	1,347.99	16.00	..	..	..	..	..	1,027.00
57	Stony Plain .....	1,650.00	141.25	..	375.00	..	..	74.00	1,549.33
58	High Prairie .....	..	..	..	..	..	..	..	..
59	Swallow .....	818.25	80.00	..	..	..	..	..	682.50
60	Entwistle .....	752.75	64.60	..	..	..	..	..	641.85
61	Carmanagay .....	980.25	466.50	..	..	..	..	..	..
62	Provost .....	707.50	..	113.00	..	..	..	86.00	594.67
63	..	..	..	..	..	..	..	..	..
64	Mid-Pembina .....	449.00	8.95	..	..	..	..	..	359.33
65	Hardisty .....	..	22.75	..	..	..	..	..	565.67
66	Paddle River .....	680.50	..	..	..	..	..	..	..
67	..	..	..	..	..	..	..	..	..
68	..	..	..	..	..	..	..	..	..
69	Elk Point .....	263.60	100.60	..	..	..	..	..	240.53
70	Wainwright .....	996.25	66.85	..	365.00	..	..	..	1,002.50
71	North Alberta .....	1,388.50	50.75	51.00	..	..	..	..	1,061.67



104	Bashaw	\$	456.75	\$	390.00	\$	390.00	\$	454.50
105	Vulcan	..	315.55	..	..	..	..	..	318.37
106	Berry Creek	..	..	..	..	..	..	..	..
107	Waterhole	..	759.00	..	165.00	390.00	..	..	837.00
108	Oyen	..	614.75	..	85.00	39.00	..	..	595.50
109	Donalda	..	..	..	..	..	..	..	..
110	..	..	..	..	..	..	..	..	..
111	Peace River	..	758.50	..	530.50	..	..	..	599.67
112	Sudfield	..	..	..	..	..	..	..	..
113	Etzikom	..	496.70	..	296.00	..	..	..	447.13
114	Retlaw	..	621.50	..	415.50	..	..	..	522.33
115	Busby	..	364.43	..	..	..	..	..	343.95
116	Boucher	..	367.50	..	..	..	..	..	306.00
117	Sibbald	..	..	..	..	..	..	..	..
118	Lomond	..	614.25	..	391.00	..	..	..	539.50
119	Richdale	..	..	..	..	..	..	..	..
120	Lamont	..	..	..	..	..	..	..	..
121	Big Valley	..	..	..	..	..	..	..	..
122	Foremost	..	..	..	..	..	..	..	..
123	Veteran	..	..	..	..	..	..	..	..

## EXHIBITION ASSOCIATIONS.

200	Lethbridge	\$	21,370.80	\$	9,340.00	\$	..	\$	..	\$	13,000.00
202	Calgary	..	..	..	..	..	..	..	..	..	13,000.00
203	Edmonton	..	17,311.50	..	12,574.75	..	..	..	..	..	1,064.17
204	Athabasca	..	1,620.30	..	146.10	..	..	..	..	..	..

## POULTRY ASSOCIATIONS

No.	SOCIETY	Government Grant 1917	Receipts	Expenditure	Balance on Hand	Overdraft	Assets	Liabilities	Date of Exhibition
793	Edmonton	\$ 578.83	\$2,937.45	\$2,937.45	\$	\$	\$1,278.36	\$1,274.90	Dec. 4-7
794	Calgary	711.86	4,610.88	6,009.60	.....	1,398.72	.....	876.00	Dec. 11-14
795	Lethbridge	1,031.33	2,629.38	2,625.78	2.60	.....	1,080.23	700.00	Jan. 15-18
796	Pincher Creek	.....	.....	.....	.....	.....	.....	.....	.....
797	Nanton	.....	.....	.....	.....	.....	.....	.....	.....
798	Camrose	.....	.....	.....	.....	.....	.....	.....	.....
799	Clareholm	.....	.....	.....	.....	.....	.....	.....	.....
800	Medicine Hat	1,221.60	1,849.73	2,288.76	.....	439.03	880.35	439.03	Jan. 1-4
801	Fort Saskatchewan	.....	.....	.....	.....	.....	.....	.....	.....
802	Wetaskiwin	300.00	845.46	774.59	60.87	.....	172.46	300.00	Jan. 22-24

## HORTICULTURAL ASSOCIATIONS

No.	SOCIETY	Government Grant 1917	Receipts	Expenditure	Balance on Hand	Overdraft	Assets	Liabilities	Date of Exhibition
766	Edmonton	\$	\$	\$	\$	\$	\$	\$	Aug. 22-24
767	Calgary	300.00	2,222.64	1,731.61	491.03	.....	491.03	.....	Aug. 23
768	Red Deer	.....	383.25	608.97	.....	225.72	24.28	250.00	Aug. 22
769	St. Albert	194.85	613.70	613.70	.....	.....	.....	209.00	.....
770	Magrath	.....	.....	.....	.....	.....	.....	.....	.....
771	Taber	195.20	373.84	339.30	34.54	.....	34.54	.....	Aug. 22
772	Camrose	.....	.....	.....	.....	.....	.....	.....	.....
773	Calgary Vacant Lot	300.00	.....	.....	.....	.....	.....	.....	.....
774	Medicine Hat	.....	1,113.75	952.38	161.37	.....	212.74	.....	Aug. 31-Sept. 1
775	Craigsmyle	.....	100.00	100.00	.....	.....	.....	.....	Sept. 8



*APPENDIX TO THE REPORT OF THE  
PROVINCIAL MEDICAL HEALTH OFFICER  
AND DEPUTY REGISTRAR-GENERAL*

## DEPARTMENT OF AGRICULTURE

SCARLET FEVER  
(Within Municipalities).

POST OFFICE	SEX		MONTHS												AGES					Total			
	M	F	January	February	March	April	May	June	July	August	September	October	November	December	0-1	1-4	5-14	15-24	25-44		45-59	60-69	70-over
Calgary	15	19	5	4	8	5	3	4	2	1			5		2	5	7	21	3				37
Edmonton	55	31	2	7	8	5	3	1	2				23		7	9	35	29	3	3			86
Lechbridge	2	2		1			1			1			1										4
Medicine Hat	6	7			1		4	2				4		2		2	6	5					13
Bruderheim	1	1		1												1							1
Camrose		1		1			1											1					1
Coronation	1	1		1														1					1
Delia	1	1					2																1
Drumheller	1	1					1								1								1
Fort Saskatchewan		1		1																			1
Lacombe	1	2		3													2			1			3
Nanton		3									3						1						3
Staveland	1	1		1																			1
Stony Plain	1	1		2													2						2
Vermilion	1	1											1				1						1
Wainwright	1	1																					1
R. M. Argyle	1	1												1									1
R. M. Bow Valley	4	2					1										1						6
R. M. Rosebush	2	1										6					6						3
R. M. Sifton	2	2															3	1					3
Total	99	71	7	21	17	10	19	7	4	6	8	23	21	27	10	23	67	58	8	4			170

SCARLET FEVER.  
(In Unorganized Districts).

POST OFFICE	SEX		MONTHS												AGES					Total			
	M.	F.	January	February	March	April	May	June	July	August	September	October	November	December	0-1	1-4	5-14	15-24	25-44		45-59	60-69	70-over
Clareholm	3	1			4												3	1					
Coronation	2	3		2	1	3											2	2					
Edson		3															1						
Gleichen		1		1						1							1						
Innisfail		1																1					
Lethbridge	1								1								1						
Little Bow		1								1								1					
Nanton	2					1					1						1	1					
Peace River	1								1									1					
Rocky Mountain	2	1										3					3	1					
Sedgewick	1	1						1							1								
Vermilion	1											1						1					
Victoria	2	1	2	1												1	2						
Total	11	11	2	4	5	4	1	2	1	1	1	1	1	3	1	1	15	8				25	

TYPHOID FEVER.  
(Within Municipalities).

POST OFFICE	SEX		MONTHS												AGES						Total	
	M	F	January	February	March	April	May	June	July	August	September	October	November	December	0-1	1-4	5-14	15-24	25-44	45-59		60-69
Calgary	7	4	1			1	1	2			5	1							7	3	1	11
Edmonton	15	7	3	5		4			2	1	4	2	1				6	11	5			22
Leithbridge	6	1					1				1	4	1				2	5				7
Medicine Hat	4	9				1	7					5					4	8	1			13
Red Deer	1	1									1							1				1
Camrose	7	1		4			4									2	4	2				8
Coalhurst	1	1	1														1					1
Commerce		1					1											1				1
Della	11	6		15		2	2									1	5	7	1	2		17
Hanna	2								2	2								2				3
High River	3	1															1	1				2
Macleod	1	1					2										1	1				2
Mundare		1	1														1					1
Nanton	5	3	4			2					1				1	1	1	2	3	1		15
Pincher Creek												4						2	3	1		6
Ponoka	3	1				3											1	1		1		3
Provost	2	3											5		1	1		2		1		5
Raymond	2	2					1										4					4
Rocky Mountain Park	2									2								2				2
Stirling		1								1							1					1
Vulcan		1									1											1
Wainwright											1						1					1
R. M. Clifton	1		1													1						1
Total	75	44	11	4	5	23	22	5	4	6	16	16	6	1	1	7	16	25	54	11	5	119

TYPHOID FEVER.  
(In Unorganized Districts).

POST OFFICE	SEX	MONTHS												AGES					Total		
		January	February	March	April	May	June	July	August	September	October	November	December	0 1	1 4	5 14	15-24	25-44		45-59	60-69
Acadia	1	1																1			1
Bow Valley	1																				1
Camrose	1									1											1
High River	1	1															1				1
Lacombe	1										1										1
Medicine Hat	1										1										1
Sturgeon	1											1									1
Taber	1							1													1
Total	7	2	2	1	1	1	1	1	1	1	1	2	1	1	1	4	1	1	1	1	8

# DIPHTHERIA (Within Municipalities)

POST OFFICE	SEX		MONTHS												AGES						Total		
	M.	F.	January	February	March	April	May	June	July	August	September	October	November	December	0-1	1-4	5-14	15-24	25-44	45-59		60-69	70-Over
Calgary	33	60	6	7	10	12	4	28	9	3	7	3	3	1	2	8	19	58	5	1	...	...	93
Edmonton	10	11	2	7	9	2	1	2	...	4	...	...	1	2	2	7	15	3	2	1	...	...	30
Lethbridge	15	19	1	1	1	...	...	2	...	9	...	3	4	14	1	8	14	9	2	...	...	34	
Medicine Hat	5	8	...	...	...	1	10	1	...	...	...	...	1	...	1	2	5	5	...	...	...	13	
Wetaskiwin	2	2	...	...	...	...	1	1	...	...	...	...	...	...	...	2	...	...	...	...	...	2	
Barons	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	1	
Blackie	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	
Camrose	10	2	...	...	...	2	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	2	
Cardston	8	2	...	...	...	...	...	...	...	...	...	...	10	...	...	1	4	5	...	...	...	10	
Carmangay	...	2	...	...	...	...	...	...	...	...	...	1	1	...	...	...	1	...	...	...	...	2	
Clareholm	1	1	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	2	...	...	...	2	
Fort Saskatchewan	3	1	...	...	...	...	2	...	...	1	...	...	1	...	...	1	1	...	1	...	...	3	
Lamont	3	2	...	4	...	...	...	...	...	...	...	1	...	...	...	3	...	...	...	2	...	5	
Ponoka	1	1	...	...	...	1	...	...	...	1	...	...	1	...	...	...	1	...	...	...	...	1	
Redcliff	2	3	3	...	...	2	...	...	...	...	...	...	...	...	...	2	3	...	...	...	...	5	
Ryley	...	5	...	4	1	...	...	...	...	...	...	...	...	...	...	2	1	1	...	...	...	5	
R. M. Clifton	3	...	...	1	...	...	...	1	...	...	1	...	...	...	...	1	2	...	...	...	...	3	
R. M. Grasswood	1	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	1	
R. M. Little Bow	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	
Total	94	120	12	23	22	17	21	34	11	19	8	8	10	29	6	37	68	85	14	4	...	214	

DIPHTHERIA.  
(In Unorganized Districts).

POST OFFICE	SEX		MONTHS												AGES						Total		
	M	F	January	February	March	April	May	June	July	August	September	October	November	December	0-1	1-4	5-14	15-24	25-44	45-59		60-69	70 over
Bow Valley		3				1			1					1		1	2						3
Edson	1											1					1					1	
High River	1					1											1					1	
Little Bow		1									1						1					1	
Medicine Hat	1	2											1				3					3	
Rocky Mountain		1					1										1					1	
Vegreville	3	6	2	1	2											1	5	5				11	
Victoria		2		2													2	3				3	
Warner	6	7										5	4	4		2	3	6				13	
Wetaskwin		1															1					1	
Total	14	23	2	9	2	2	1	1	1			7	6	6		4	22	11				37	

SMALLPOX.  
(Within Municipalities)

POST OFFICE	SEX		MONTHS												AGES						Total	
	M	F	January	February	March	April	May	June	July	August	September	October	November	December	0-1	1-4	5-14	15-24	25-44	45-59		60-69
Calgary	5	5	..	..	1	..	1	2	..	..	1	2	2	1	..	..	1	3	5	1	..	..
Edmonton	1	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..
Lethbridge	6	1	..	2	1	..	..	2	1	1	..	..	..	..	..	..	..	1	..	..	..	..
Medicine Hat	10	5	..	..	1	1	..	5	7	..	..	1	..	..	..	..	3	2	9	1	..	..
Castor	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
Clareholm	3	3	..	..	..	..	..	..	..	2	1	..	..	..	..	..	2	1	1	..	..	..
Coalhurst	1	1	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..
Didsbury	1	1	..	..	..	..	..	..	..	..	..	..	..	2	..	1	..	..	..	..	..	..
Erskine	3	1	..	..	..	..	..	4	..	..	..	..	..	..	..	..	2	2	..	..	..	..
Grassy Lake	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
High River	10	3	..	1	..	..	..	..	..	..	..	13	..	..	..	..	1	8	4	..	..	..
Lacombe	1	3	..	..	..	..	..	..	..	..	..	..	4	..	..	..	1	..	..	..	..	..
Magrath	12	6	..	..	..	..	..	2	16	..	..	..	..	4	..	1	2	1	1	..	..	..
Olds	34	28	..	..	..	..	..	..	..	..	..	49	13	1	1	7	13	20	15	6	..	..
Raymond	2	1	..	..	..	3	..	..	..	..	..	..	..	..	..	..	3	10	..	..	..	..
Vulcan	6	2	..	..	..	..	..	..	..	..	8	..	..	..	..	..	..	3	..	..	..	..
R. M. Mountain View	1	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	1	..	..	..	..
Total	98	56	..	4	3	5	2	15	8	19	10	2	65	21	1	8	23	55	58	9	..	..



SMALLPOX.  
(In Unorganized Districts).

POST OFFICE	SEX		MONTHS												AGES					Total			
	M.	F.	January	February	March	April	May	June	July	August	September	October	November	December	0-1	1-4	5-14	15-24	25-44		45-59	60-69	70-over
Cardston ..	14	6					3	1					16	1		3	7	6	3	1			20
Didsbury ..	1																	1					1
Gleichen ..	2	4										6					1	1	4				6
Hand Hills ..	1				1													1					1
Little Bow ..	3	4										4	1	1				1	5	1			7
Okotoks ..	10	3			13							1					2	2	9				13
Pembina ..	1																	2	1				1
Ponoka ..	5							5										2	3				5
Redcliff ..	2	1						3						1				1	2	1			3
Whitford ..	3	1																2	1				4
Total ..	42	19			17	3	6	3	3		11	17	4			3	10	17	28	3			61

CHICKEN-POX.  
(Within Municipalities)

POST OFFICE	SEX		MONTHS												AGES						Total	
	M	F.	January	February	March	April	May	June	July	August	September	October	November	December	1-4	5-14	15-24	25-44	45-59	60-69		70-over
Calgary	240	207	18	17	19	13	65	82	60	17	8	22	81	45	45	87	190	94	14	17	...	447
Edmonton	213	273	53	51	58	15	36	23	17	17	20	42	90	64	34	99	186	144	18	5	...	486
Lethbridge	65	54	17	14	...	...	6	8	4	2	4	...	32	32	17	20	51	25	4	1	1	119
Medicine Hat	9	8	...	...	...	...	2	...	1	...	...	3	6	5	3	7	7	...	...	...	...	17
Red Deer	12	7	...	...	...	...	...	1	...	...	...	...	...	18	2	7	10	...	...	...	...	19
Beverly	6	2	6	1	...	...	...	...	...	...	...	...	...	...	4	4	...	...	...	...	...	8
Cardigan	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1
Coalhurst	5	2	...	5	2	...	...	...	...	...	...	...	...	...	1	6	...	...	...	...	...	7
Cochrane	8	4	12	...	...	...	1	...	...	...	...	...	...	...	2	10	...	...	...	...	...	12
Commerce	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1
Coronation	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1
Della	...	2	...	...	...	...	...	...	2	...	...	...	...	...	...	1	1	...	...	...	...	2
Fort Saskatchewan	7	17	...	...	...	...	...	...	...	...	2	13	9	...	1	8	12	3	...	...	...	24
High River	11	12	1	...	...	3	4	1	...	1	...	...	17	...	5	18	3	...	...	...	...	26
Pincher Creek	3	1	...	...	...	...	2	...	...	...	...	2	...	...	...	4	...	...	...	...	...	4
Rocky Mountain Park	4	6	...	...	...	...	...	...	...	...	...	10	...	...	2	2	6	...	...	...	...	10
Stavely	4	1	5	...	...	...	...	...	...	...	...	...	...	...	1	1	2	1	...	...	...	5
Strome	...	2	...	...	...	...	...	2	...	...	...	...	...	...	2	4	7	...	...	...	...	2
Vegreville	6	7	...	...	...	...	4	7	...	10	...	2	...	...	2	5	5	...	...	...	...	13
R. M. Flagstaff	2	8	...	...	...	...	...	...	...	...	...	...	...	...	5	5	...	...	...	...	...	10
R. M. Sifton	3	1	...	...	...	4	...	...	...	...	...	...	...	...	1	3	...	...	...	...	...	4
Total	603	615	112	89	79	36	120	121	85	46	34	91	235	161	108	253	522	272	39	23	1	1218

CHICKEN-POX.  
(In Unorganized Districts).

POST OFFICE	SEX		MONTHS												AGES						Total		
	M.	F.	January	February	March	April	May	June	July	August	September	October	November	December	0-1	1-4	5-14	15-24	25-44	45-59		60-69	70-over
High River	1	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	1	..	..	..	..	..	1
Lethbridge.	1	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	1	..	..	..	..	..	1
Nanton	..	1	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	1	..	..	..	..	1
Okotoks	1	..	..	..	..	..	..	..	..	6	..	..	1	..	..	..	3	1	..	..	..	..	1
Rocky Mountain	2	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	..	..	..	..	1
St. Albert	1	3	4	..	..	..	..	..	..	1	..	..	..	..	..	..	1	1	..	..	..	..	4
St. Paul	2	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	2
Stettler	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	1
Vegreville	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
Total	9	10	4	4	3	..	4	4	4	6	..	..	1	1	7	5	11	3	3	..	..	..	19

MEASLES  
(Within Municipalities)

POST OFFICE	SEX		MONTHS												AGES						Total	
	M.	F.	January	February	March	April	May	June	July	August	September	October	November	December	0-1	1-4	5-14	15-24	25-44	45-59		60-69
Calgary	205	300	10	7	63	142	145	41	3	1	17	41	35	62	137	105	96	89	16			505
Edmonton	174	170	4	7	60	68	74	84	34	9		2	2	23	107	155	35	14	10			344
Lethbridge	160	165	18	69	45	109	56	19	7	1	1	1	1	21	109	140	41	7	7			325
Medicine Hat	51	44		16	53	24	1	1	1	1				7	36	45	7					95
Red Deer	5	4			5	2	2	2								4	5	1				9
Big Valley	2	4				6											5	1				6
Camrose	1	1				1								1								1
Carmanagay	1		1															1				1
Carstairs	18	18			36										11	25						36
Coalhurst	1			1														1				1
Commerce	1	3								4						1	3					4
Della	4	2				6											6					6
High River	3	3					4	2								1	4	1				6
Innisfail	38	42			80									2	18	53	5	2				80
Lamont	6	5		3	8											1	10					11
Macleod	1					1												1				1
Oyen		1			1													1				1
Pincher Creek		1											1					1				1
Raymond	24	9	2	31										2	10	19	2					33
North Red Deer	2	2						2						1				1				2
Redcliff	54	55	36	68	5									8	20	65	16					109
Retlaw	4	6					10									2	8					10
Rocky Mountain Park	6	13										19		3	5	7	4					19
Strathmore	16	12			5	23								2	5	17	4					28
Vulcan	6	6			12									2	2	6	2					12
Warner	15	18	33											4	7	20	2					33
R. M. Burlington	5	1	6													6						6

R. M. Cereal	1	.....	1	.....	1	.....	1
R. M. Marguls	1	.....	1	.....	1	.....	1
R. M. McLean	2	.....	2	.....	2	.....	2
R. M. Streamtown	3	.....	3	.....	3	.....	3
Total	802	890	109	197	434	311	372
			99	24	3	17	41
			57	138	482	700	225
			114	33	.....	.....	1692

## (In Unorganized Districts).

[illegible]

WHOOPIING COUGH.  
(Within Municipalities)

POST OFFICE	SEX		MONTHS												AGES					Total		
	M	F	January	February	March	April	May	June	July	August	September	October	November	December	0—1	1—4	5—14	15—24	25—44		45—59	60—69
Calgary	35	43	1	2	4	5	17	13	15	2	10	6	3	3	5	21	41	10	1			
Edmonton	136	140	15	17	1	7	24	23	56	47	56	14	16		17	86	92	79	2			
Medicine Hat	1	1							2													
Commerce		1											1			1						
Diamond City		2											2			1						
Macleod	1															1						
Macleod	14	9					1								2	1						
Magrath			6	14											2	9	9					
Pincher Creek	1							1							1							
Raymond		2													1							
Retlaw	3	1				4									1	2	1					
Vegreville	2	1									3					2	1					
Total	190	200	18	25	19	16	43	23	71	62	61	24	22	6	28	123	147	89	3			

## (In Unorganized Districts).

Lac Ste. Anne																2	2	2				
Stettler	2	4		6				5								2	3	4				
Vegreville	4	3							1	2								1				
Vermilion	1	1							2								2					
Total	8	8		6				5	3	2						5	8	3				

**MUMPS.**  
(Within Municipalities)

POST OFFICE	SEX		MONTHS												AGES						Total	
	M	F	January	February	March	April	May	June	July	August	September	October	November	December	0-4	5-14	15-24	25-44	45-59	60-69		70 and over
Calgary	266	257	88	59	169	101	66	16	7	7	4	3	2	1	64	133	125	96	89	16	...	...
Edmonton	181	131	6	1	1	4	47	41	14	26	48	83	46	...	21	107	127	43	7	7	...	...
Lethbridge	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	
Medicine Hat	23	23	...	13	...	...	...	...	4	...	9	...	18	...	...	11	26	9	2	...	...	
Erskine	6	5	2	5	...	...	...	...	...	...	...	...	...	...	...	2	6	...	...	...	...	
Redcliff	1	1	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	
Vegreville	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	
Vulcan	1	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	
Total	480	418	90	61	188	107	71	63	52	21	39	51	103	52	85	254	285	148	103	23	...	898

**INFANTILE PARALYSIS.**  
(Within Municipalities)

POST OFFICE	M	F	January	February	March	April	May	June	July	August	September	October	November	December	Total
Hardisty	2	2	...	...	2	...	...	...	...	...	...	...	1	1	2
Red Deer	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...
Total	2	2	...	...	2	...	2	...	...	...	...	...	1	1	4

TUBERCULOSIS  
(Within Municipalities)

POST OFFICE	SEX		MONTHS												AGES					Total			
	M	F	January	February	March	April	May	June	July	August	September	October	November	December	0 1	1 4	5 14	15 24	25-44		45-59	60-69	70-over
Calgary	37	14	2	2	3	3	3	12	11	2	1	13	4	2	0	1	2	21	27	1	1	..	51
Edmonton	25	10	2	2	3	4	5	2	4	2	4	3	2	2	..	..	1	11	21	2	..	..	35
Lethbridge	7	3	2	..	..	..	..	..	..	2	..	..	2	..	..	..	..	8	8	1	..	..	9
Commerce	1	..	2	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	1
Es-kine	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	1
Innisfail	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	1
Macleod	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	1
Redcliff	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	1	..	..	..	1
R. M. Robinson	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1
Total	72	29	6	2	7	8	8	14	15	6	5	17	8	5	..	3	34	60	4	4	..	..	101



TUBERCULOSIS  
(In Unorganized Districts).

POST OFFICE	SEX		MONTHS												AGES					Total		
	M.	F.	January	February	March	April	May	June	July	August	September	October	November	December	0-4	5-14	15-24	25-44	45-59		60-69	70-over
Camrose	1	2	1				1										1	1				
Lacombe		1							1									1				
Little Bow		1						1										1				
Medicine Hat	2	1											2					1				
Sedgewick	1	1																1				
Sturgeon	1	2	2	1													1	1				
Vegreville	4	1	1	1	2				1								1	3	1			
Vermilion	1	1	1														1	1				
Victoria	2	4			1	1			2	1		1					1	4	1			
Wetaskiwin		1			1													1				
Whitford		2		1					1									2				
Total	12	13	4	4	4	1	2	5	2			1		2			5	17			25	

OTHER DISEASES.  
(Within Municipalities)

POST OFFICE	SEX		MONTHS												AGES						Total		
	M.	F.	January	February	March	April	May	June	July	August	September	October	November	December	0-1	1-4	5-14	15-24	25-44	45-59		60-69	70-over
Calgary	63	55	2	5	6	5	3	3	2	1	4	6	27	8	29	65	16	1					118
Edmonton	26	16	4	2	7	3	4	6	5	3	2	1	3	5	21	14	1	1					42
Leithbridge	4	1							3								4	1					5
Medicine Hat	2						1	1	1								2						3
Red Deer	1																1						1
Lamont	1				1								1					1					1
Pincher Creek	1	1					1											1					1
Strathmore	1						1											1					1
Trochu	1																	1					1
R. M. Flagstaff	1				1						1						1						1
Total	100	73	6	7	15	8	12	6	11	4	3	5	66	50	13	50	87	20	3				173

(In Unorganized Districts).

High River	2	3			5													2	2	1			5
Little Bow		1			1														1				1
Ribstone		1																					1
Rocky Mountain		1			1															1			1
St. Paul	1								1														1
Taber		1	1																1				1
Vermilion	2	1			2													1	1	1			3
Total	5	8	2	2	8													4	4	2		1	13

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